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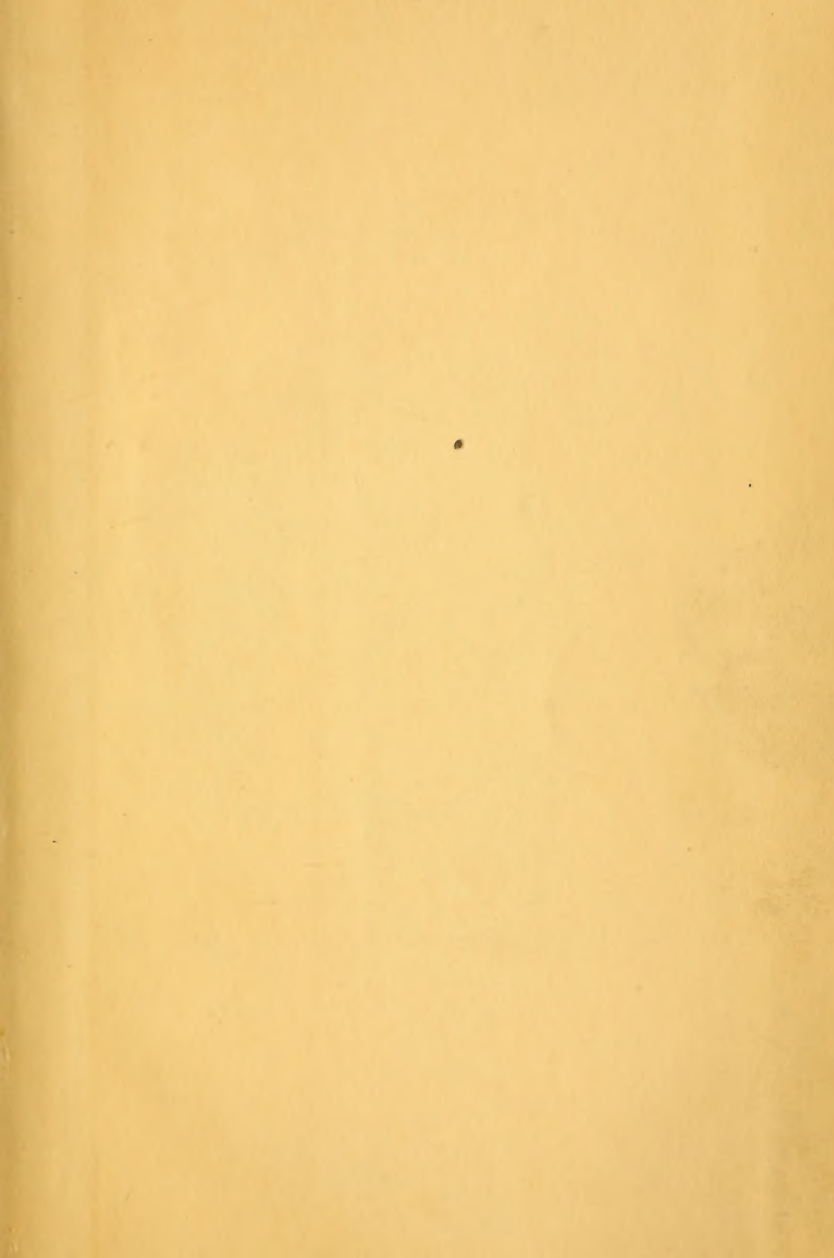
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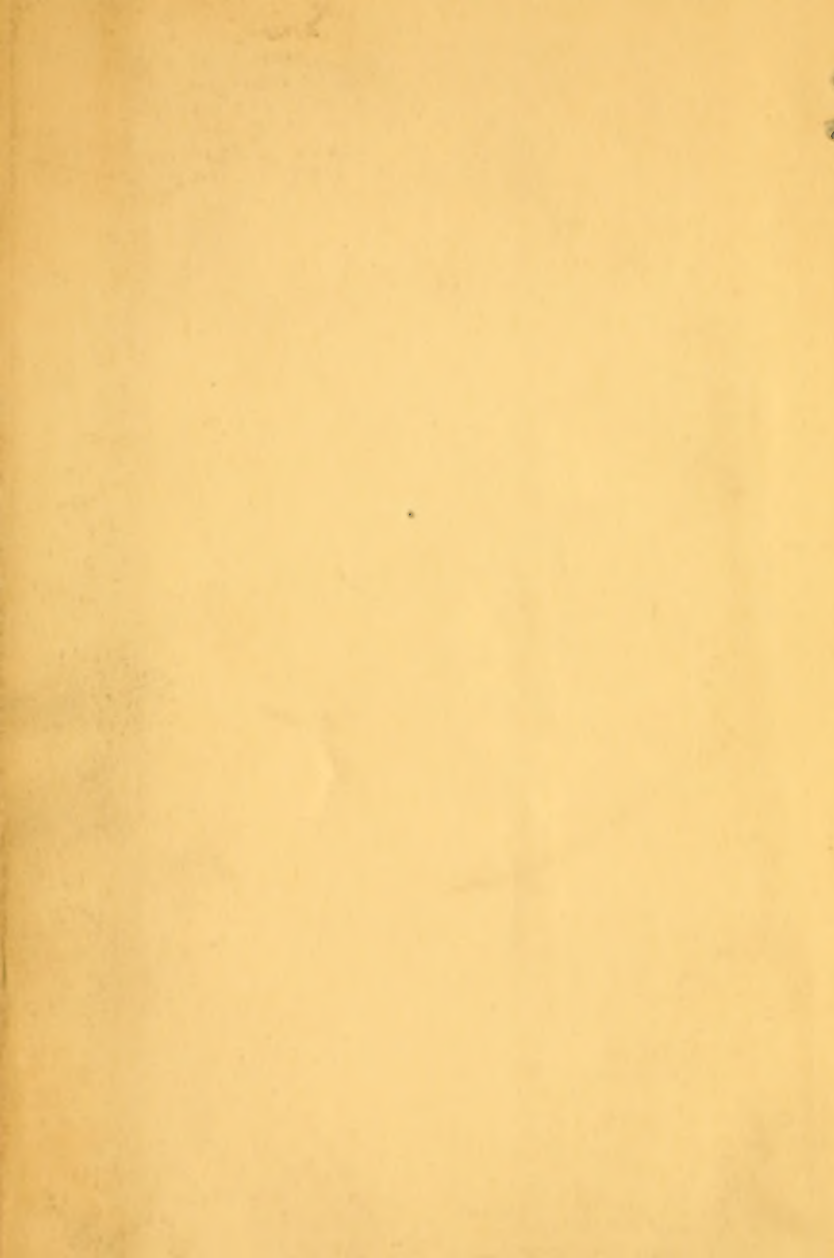
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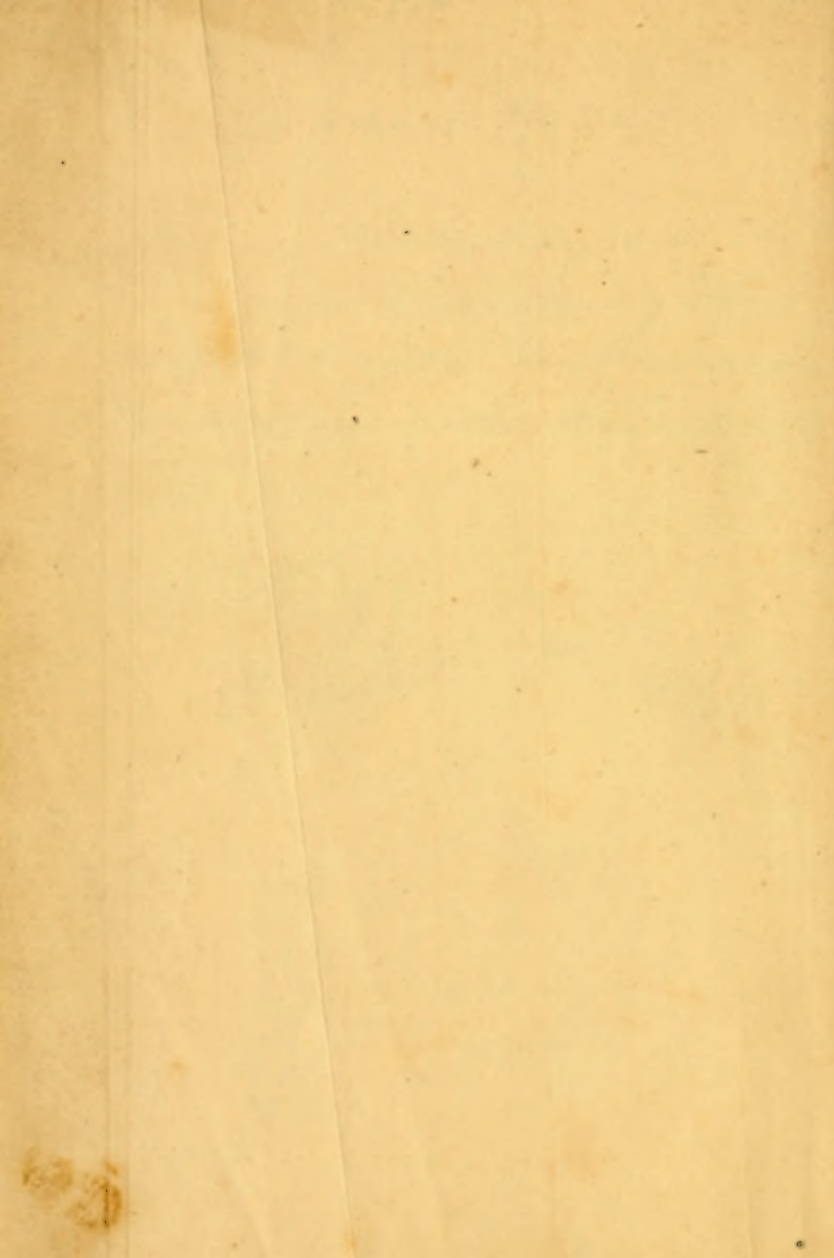
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Recollections of the West: p. 211.

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TOPOGRAPHICAL DESCRIPTION MARY DEBRET

OF THE WESTERN TERRITORY

OF NORTH AMERICA:

CONTAINING

A succinct Account of its SOIL, CLIMATE, NATURAL HISTORY, POPULATION, AGRICULTURE, MANNERS, and CUSTOMS. With an ample Description of the several Divisions into which that Country is partitioned

TO WHICH ARE ADDED,

- I. The Discovery, Settlement, and present State of Kentucky; with an Essay towards the Topography and Natural History of that important Country, by J. Filson. Also the Minutes of the Piankashaw Council, 1784.
- II. An Account of the Indian Nations inhabiting within the Limits of the XIII States; their Manners and Customs; and Reflections on their Origin.
- III. The Culture of Indian Corn, Hemp, Flax, Hops, Tobacco, Indigo, Cotton, Senega Root, Esquine, Madder, Jalap, Potatoes, Silkworms, Perfummon, various Kinds of Grapes, Berries, and Nuts, the Candleberry Myrtle, Sumach, Coffee, and other Particulars in the vegetable Kingdom.
- IV. Observations on the ancient Works, the native Inhabitants of the Western Country, &c. by Major Jonathan Heart.
- V. Historical Narrative and Topographical Description of Louisiana and West-Florida, containing a great Variety of interesting Particulars, by Mr. Thomas Hutchins.
- VI. Account of the Soil, growing Timber, and other Productions of several Lands, particularly the Genesee Tract, lately located, and now in the Progress of being settled.
- VII. Remarks for the Information of those who wish to become Settlers in America, by Dr. Franklin.
- VIII. Topographical Description of Virginia, Pennsylvania, Maryland, and North-Carolina, by Mr. Thomas Hutchins.
- IX. Mr. Patrick Kennedy's Journal up the Illinois River, &c.
- X. Description of the State of Tennessee, and of the South-western Territory, with the Constitution of Tennessee established 1796.
- XI. An Act for establishing Knoxville.
- XII. Treaty concluded between the United States of America and the Crown of Spain, for the free Navigation of the Mississippi.
- XIII. Plan of Association of the North American Land Company, &c.

By GILBERT IMLAY,

A Captain in the American Army during the War, and Commissioner for laying out Lands in the Back Settlements.

Illustrated with correct Maps of the Western Territory of NORTH AMERICA; of the STATE OF KENTUCKY, as divided into Counties, from actual Surveys by Elhu Barker; a Map of the Tennessee Government; and a Plan of the Rapids of the Ohio.

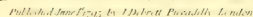
THE THIRD EDITION,
WITH GREAT ADDITIONS.

L O N D O N :

PRINTED FOR J. DEBRETT,
OPPOSITE BURLINGTON HOUSE, PICCADILLY,

1797.

Designed for India's Topographical Description of that Country



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OF THE

WESTERN TERRITORY

OF

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INTRODUCTION.

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THE author of the following letters having been an early witness to the settlement of Kentucky, had frequently suggested to me the importance of that rising country. But I confess that, with every deference to his judgment, I was not aware how deservedly it had been estimated as of the utmost consequence. A momentous æra, during several years of which the eyes of the whole world were attentively fixed upon Europe, had so entirely occupied my mind, that, regardless of occurrences in the remote parts of America, I felt no inconsiderable astonishment at finding that Kentucky was to be admitted as a separate state into the federal government.

It struck me as a natural object of inquiry to what a future increase and elevation of magnitude and grandeur the spreading empire of America might attain, when a country had thus suddenly risen from an uninhabited wild, to the quantum of population necessary to govern and regulate its own administration.

325
It was under this idea that I requested my friend to send me, at his leisure, a complete description of the western country of America; an enumeration of the laws and government of Kentucky; and an account of that district of country which appeared the most likely to become a new state.

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All this he has done in so ample a manner, that when the news of the defeat of general St Clair was received, I thought that the letters which had imparted to me and a small circle of friends so much information and entertainment, would prove acceptable to the public, as imparting to them a more particular knowledge of that country, so apparently the bone of contention between the Indians and the Americans.

4/1/27
It is very certain that no work of the kind has hitherto been published in this country; and when original matter is brought before the public, surely it cannot fail to prove acceptable to the philosopher, and entertaining to the curious.

The occasional remarks, which he has interspersed, respecting the laws, religion, and customs of Europe, are entitled to indulgence, as I believe them to be made with candour.

A man who had lived until he was more than five-and-twenty years old, in the back parts of America (which was the case with our author, except during the period he served in the army), accustomed to that simplicity of manners natural to a people in a state of innocence, suddenly arriving in Europe, must have been powerfully stricken with the very great difference between the simplicity of the one, and what is called *etiquette* and good breeding in the other.

Perhaps such a person is better calculated than ourselves to judge of our manners ; and doubtless habit very materially acts upon the human mind ; and since it has been too much the practice in Europe to confer favours in proportion to the servility of courtiers, I am apprehensive that we have imperceptibly lost much of our energy and manliness.

The calculated rise of the american empire, which these letters contain, will not, I think, appear extravagant, when we recollect the rapid strides which have advanced it to its present flourishing state of wealth and population.

In the life of Edward Drinker, which was published in Philadelphia, April 1783, are contained these remarkable particulars :

“ Edward Drinker was born in a cottage in 1688, on the spot where the city of Philadelphia now stands, which was inhabited, at the time of his birth, by Indians, and a few Swedes and Hollanders.

“ He often talked of picking blackberries, and catching wild rabbits, where this populous city is now seated. He remembered the arrival of William Penn, and used to point out the spot where the cabin stood in which that adventurer and his friends were accommodated on their arrival.

“ He saw the same spot of earth, in the course of his own life, covered with woods and bushes, the receptacles of wild beasts and birds of prey, afterwards become the seat of a great and flourishing city, not only the first in wealth and arts in America, but equalled only by few in Europe.

“ He saw splendid churches rise upon morasses, where he used

to hear nothing but the croaking of frogs ; great wharfs and warehouses, where he had often seen savages draw their fish from the river ; he saw that river afterwards receiving ships and merchandize from every part of the globe, which, in his youth, had nothing bigger than an indian canoe.

“ He had been the subject of many crowned heads ; but when he heard of the oppressive and unconstitutional acts passed in Britain, he bought them all, and gave them to his grandsons to make kites of ; and embracing the liberty and independence of his country, after seeing the beginning and end of the british empire in Pennsylvania, and after triumphing in the establishment of freedom, he died in November 1782.”

I repeat, that when we recollect the wonderful changes which have taken place during the life of one man in Pennsylvania, under all the disadvantages with which the population of that country was attended, as well as the rest of America, posterity will not deem it extraordinary, should they find the country settled quite across to the Pacific ocean in less than another century *.

I will suppose that the inhabitants of America amount at present to five millions of souls at least, and that their population doubles once in 20 or 25 years ; at the end of a hundred years their number will be 64 millions.

This is a very simple but very obvious truth. To be sensible of this, we have only to mark the stages of its growth. For, whether the secret of its amazing fecundity be owing to the great proportion of room which the extent of its territory affords, signifies very

* It would be very extraordinary, indeed, if such were to be the case ; for as far back as the Ohio country, when compared with the breadth of the continent in those latitudes, the settled country appears but a narrow slip or margin upon the eastern coast : it is, however, extremely probable, that in the course of another century the wilderness, and other intermediate lands, which are capable of improvement, and which lie between the Atlantic settlements and those of the Ohio, may be occupied, as well as the greater part of the north-west territory between the Ohio river and Canada. What progress the canadian settlements may, in that period of time, make northwardly, it is impossible to say ; though, from the want of so good a climate, it is fair to infer, that the settlement and improvement of that country will never keep pace with the more inviting and populating districts further to the south.—EDIT.

little, as it does not appear likely that any material alteration, in that respect, will take place in the course of so short a time as a century; as the expansion of its dominion will secure the same advantages to population.

Under all the disadvantages which have attended manufactures, and the useful arts, it must afford the most comfortable reflection to every patriotic mind, to observe their progress in the United States, and particularly in Pennsylvania. For a long time after our forefathers sought an establishment in this place, then a dreary wilderness, every thing necessary for their simple wants was the work of european hands. How great—how happy is the change! The list of articles we now make ourselves, if particularly enumerated, would fatigue the ear, and waste your valuable time. Permit me, however, to mention them under their general heads:—Meal of all kinds, ships and boats, malt liquors, distilled spirits, pot-ash, gunpowder, cordage, loaf-sugar, pasteboard, cards and paper of every kind; books in various languages; snuff, tobacco, starch, cannon, musquets, anchors, nails, and very many other articles of iron; bricks, tiles, potter's ware, mill-stones, and other stone work; cabinet work, trunks, and windfor chairs; carriages and harness of all kinds; corn-fans, ploughs, and many other implements of husbandry; saddlery and whips; shoes and boots; leather of various kinds; hosiery, hats and gloves, wearing apparel, coarse linens and woollens, and some cotton goods; lin-seed, and fish-oil; wares of gold, silver, tin, pewter, lead, brass, and copper; clocks and watches; wool and cotton cards, printing types, glass and stone ware, candles, soap, and several other valuable articles, with which the memory cannot furnish us at once.

If the nations of Europe possess some great advantages over us in manufacturing for the rest of the world, it is, however, clear, that there are some capital circumstances in our favour when they meet us in our own markets. The expences of importing raw materials, which, in some instances, they labour under, while we do not; the same charges in bringing their commodities hither; the duties we must lay on their goods for the purposes of revenue; the additional duties which we may venture to impose, without risking the corruption of morals, or the loss of the revenue, by smuggling; the prompt payment our workmen receive; the long credits they
give

give on their goods; the sale of our articles by the piece to the consumer, while they sell theirs by great invoices to intermediate purchasers; the durable nature of some american manufactures, especially of linens; the injuries theirs often sustain from their mode of bleaching: these things, taken together, will give us an advantage of 25 to 50 per cent. on many articles, and must work the total exclusion of many others. — Extract from a speech delivered in the university of Pennsylvania, on Thursday, August 9, 1787.

The immense extent of the american empire abounds with all climates, with every kind of soil, and with rivers so various and extensive, that it seems calculated to become a rival to half the globe in trade and riches.

Some obstructions interfered with the navigation of the Mississippi, which were as repugnant to sound policy on the part of Spain, as it was distressing to the people of the western country; but the free navigation of it is now conceded by treaty with Spain, bearing date October 27, 1795, which treaty we have given at length in this edition, as the reader may see, by adverting to p. 562.

The first edition of this work having excited a general curiosity respecting the western country of the United States of America, but more particularly that of the state of Kentucky, the editor has thought it would not be unwelcome to the public to annex an appendix, containing a description of Kentucky by Filson, published in America 1784; from which Morse, and all other writers (our author excepted), since that æra, have taken their information, concerning the developement of the first rise and progress of a state, the circumstances of which are so truly astonishing.

The propriety of adopting these motives was enforced by the peculiar energy which a corroboration of accounts, so wonderful in the estimation of Europeans, produces, and which the two works possess, that it must be impressed upon the mind of every intelligent reader, who sometimes fears the ardour of the author's imagination may exceed the just limits of truth and precision; and the justness of these accounts is farther strengthened by a narrative comprehended within this appendix, written in a style of the utmost simplicity, by a man who was one of the hunters, who first penetrated into the bosom of that delectable region.

To the present edition, besides a variety of useful notes and observations of the most undoubted authority, interspersed throughout the work, are added — Ample accounts of the sugar maple-tree, with the method of preparing the sugar from it, the demand for it, and the capacity of supply. Mr. Cooper's answer to questions concerning the state of society in America, price of provisions, &c. Observations on the state of literature, of civil liberty, and religious rights, in the american states, by Mr. Tench Coxe. The culture of indian corn, hemp, flax, hops, tobacco, indigo, cotton, senega root, esquine, madder, jalap, potatoes, silkworms, persimmon, various kinds of grapes, berries, and nuts, the candleberry myrtle, fumach, coffee, and other particulars in the vegetable kingdom. Observations on the ancient works, the native inhabitants, &c. of the western country, by major Jonathan Heart. Description of a remarkable rock and cascade, by Mr. Thomas Hutchins. An historical narrative and topographical description of Louisiana and West Florida, containing a great variety of interesting particulars, by the same gentleman. An account of the soil, growing timber, and other productions of several lands, particularly the Genesee tract, lately located, and now in the progress of being settled. Remarks for the information of those who wish to become settlers in America, by Dr. Franklin. A topographical description of Virginia, Pennsylvania, Maryland, and North Carolina; comprehending the rivers Ohio, Kanhaway, Sioto, Cherokee, Wabash, Illinois, Mississippi, &c. by Mr. Thomas Hutchins. Mr. Patrick Kennedy's journal up the Illinois river, &c. A short description of the state of Tenaſsee, lately called the territory of the United States south of the river Ohio. A short description of the south-western territory. Constitution of the state of Tenaſsee, established at Knoxville, February 6, 1796. An act for establishing Knoxville. Treaty concluded between the United States of America and his catholic majesty. Plan of the association of the north american land company, &c.

It would lead us beyond the bounds of a preface to shew the many advantages that arise from the free navigation of the Mississippi, now obtained by the treaty with Spain. This famous river is navigable upwards of 2000 miles, to the falls of St. Anthony, in latitude 45°, the only fall we know in it, which is 16 degrees of
latitude

latitude above its mouth ; and even above that fall there is 30 fathom of water in the river, with a proportionable breadth. About 1000 miles from its mouth it receives the river Ohio, which is navigable 1000 miles farther, some say 1500, nigh to its source, not far from lake Ontario in New York ; in all which space there is but one fall or rapid in the Ohio, and that navigable both up and down, at least in canoes. This fall is 300 miles from the Mississippi, and 1300 from the sea, with five fathom of water up to it. The other large branches of the Ohio, the river of the Cherokees, and the Wabash, afford a like navigation, from lake Erie in the north to the Cherokees in the south, and from thence to the bay of Mexico, by the Mississippi ; not to mention the great river Missouri, which runs to the north-west parts of new Mexico, much farther than any good accounts we have of that continent extend. From this it appears, that the Missouri affords the most extensive navigation of any river at present known ; so that it may justly be compared to an inland sea, spreading over nine tenths of the whole continent of North America.

These things being considered, the importance of the navigation of the Mississippi, and of a port at the mouth of it, will abundantly appear. Whatever that navigation be, good or bad, it is the only one for all the interior parts of North America, which are as large as the greater part of Europe ; no part whereof can be of any use to foreign commerce without the navigation of the Mississippi, and settlements upon it. Not without reason, then, has it been said, that whoever are possessed of this river, and of the vast tracts of fertile lands upon it, must in time command that continent, and the trade of it, as well as all the natives in it, by the supplies which this navigation will enable them to furnish those people. The Mississippi indeed is rapid for 1200 miles, as far as to the Missouri, which makes it difficult to go up the river by water. But however difficult, it is frequently done ; and its rapidity facilitates a descent upon it, and a ready conveyance for those gross commodities, which are the chief staple of North America, from the most remote places of the continent : and as for lighter european goods, they are more easily carried by land, as the indian traders do, over great part of the continent, on their horses, in which this country abounds. Even the mouth of the river is from 17 to 18 feet in depth, admitting

ing ships of 500 tons, the largest generally used in that trade. And as for the navigation from the Mississippi, the voyage may be performed in six weeks. We have not room to expatiate on all the advantages arising from the navigation of the Mississippi, and shall therefore conclude with observing, that some of the golden schemes that were formerly denominated from this river, may probably now be realized, if the commerce to which it is so favourable be pursued with industry and prudence. For, in the words of Dr. Harris, the power attained either by policy or arms is but of short continuance in comparison of what is acquired by trade. If we reflect on the reason of the thing, it will appear that commerce is founded on industry, and cherished by freedom. These are such solid pillars, that whatever superstructure is erected upon them, cannot easily be overthrown by force, but must be ruined by sap: this we find justified by history and experience. The ancient kingdom of Tyre owed its extensive and lasting power to its commerce; and all the accounts we have of the progress of Alexander's army agree in this, though hardly in any thing else; that the destruction of Tyre cost him more than the over running the persian empire, though the territories of the former scarce entered into comparison with the prodigious dominions of the latter. Carthage, the most formidable enemy of Rome, stood likewise indebted to trade for that strength which was so long reputed invincible, and which had always proved so, if the virtues necessary to a state supported and even subsisting by commerce, had not been greatly impaired by that luxury which her riches induced before she was attacked by her formidable enemy. The history of the middle ages likewise shews the republics of Venice and Genoa rising to an amazing height by the diligent prosecution of foreign trade and maritime power, and sinking again into a low condition, and that not so much by a superior force of foreign enemies, as by the neglect of those arts, and diminution of those virtues, by which their empire was attained.

According to the present system, wealth is the source of power; and the attainment of wealth can only be brought about by a wise and happy attention to commerce.

TOPOGRAPHICAL DESCRIPTION,

Ec. Ec. Ec.

LETTER I.

MY DEAR FRIEND,

Kentucky.

THE task you have given me, however difficult, I undertake with the greatest pleasure, as it will afford me an opportunity of contrasting the simple manners and rational life of the Americans, in these back settlements, with the distorted and unnatural habits of the Europeans: which have flowed, no doubt, from the universally bad laws existing on your continent, and from that pernicious system of blending religion with politics, which has been productive of universal depravity.

While ignorance continued to darken the horizon of Europe, priestcraft seems to have forged fetters for the human mind, and, in the security of its own omnipotence, to have given a stamp to the writings and opinions of men, that rivetted the tyranny of those ingenious sophists—The consequence has been lamentable in the extreme.

There are æras favourable to the rise of new governments; and though nature is governed by invariable laws, the fortunes of men and states appear frequently under the dominion of chances: but happily for mankind, when the american empire was forming, philosophy pervaded the genius of Europe, and the radiance of her features moulded the minds of men into a more rational order.

It was the zenith of your power, and the inflated grandeur of visionary plans for dominion, which the remains of gothic tyranny produced, that gave occasion to the rise of our independence. We claim no merit or superior wisdom in avoiding the complication of laws which disgraces the courts of Great Britain, as well as the rest of Europe. We have only appropriated the advantages of new lights, as they have shone upon us; which you have an equal chance of doing; and your not doing it, must remain a monument of your folly, calculated to excite the astonishment and indignation of a more manly progeny. However, I shall leave this subject for the present, and proceed in order in the history, &c. which you request; hoping that you will be content to receive my remarks by letter, from time to time, as I may find an opportunity of sending them.

The vestiges of civilization described by Carver and others, on this side of the Allegany mountains, are entirely imaginary. Every mark that is human has the feature of barbarism, and every comparison of the natives and animals, with those of the old world, tends to confirm the opinion of those sensible men (some of whom wrote more than a century ago) who thought that America was peopled from Scythia, by the freights of Kamtschatka: which opinion has been followed by your judicious natural historian Pennant, in his preface to his Arctic Zoology. They say, first, "America has always been better peopled on the side towards Asia, than on that towards Europe: Secondly, The genius of the Americans has a greater conformity to that of the Tartars, who never applied themselves to arts: Thirdly, The colour of both is pretty much alike; it is certain that the difference is not considerable, and is perhaps the effect of the climate, and of those mixtures with which the Americans rub themselves: Fourthly, The wild beasts which are seen in America, and which cannot reasonably be supposed to have been transported thither by sea, could only have
come

come by the way of Tartary." An addition to these arguments is, that the bison of Scythia, and what is called the buffalo in America, are precisely the same species of animal; besides, the animals of both countries bear the strongest resemblance to each other.

Every thing tends to convince us, that the world is in an infant state. If it is subject to change only from the gradual wear which the operations of the elements necessarily produce, and which is so insensible as to require us to contemplate the immensity of time and space to comprehend a cause for the alterations we discover, still the various phenomena, which are everywhere to be found, both on the surface and in the bowels of the earth, afford sufficient proof that there has been a recent alteration upon the face of the globe. Whether or not mankind came originally from the East, signifies little. It is however certain, that Europe was in its infancy three thousand years ago; and that America was still less advanced to maturity, I believe also will be acknowledged; though the barbarism of the one, and the comparative civilization of the other, is no argument: for, let our hemisphere have been peopled as it would, it had the disadvantage of having no polished country in the neighbourhood of its vast extent of dominion; and if it received emigrants from Tartary, they were equally savage with themselves; or if from the wreck of a chinese or japanese vessel, they seem to have been too rare (if ever) to have been productive of much good to the Americans. The idea of the incas of Peru being of chinese origin merits no consideration.

That man possesses from nature the talents necessary to his own civilization, and that perfection of philosophy and reason which dignifies his nature, admits, I should conceive, of no dispute.

In all countries which wear the marks of age, men seem always to have been advancing their improvements for the

comfort and order of society. Adventitious circumstances have rapidly increased them in modern times in the old world, while they have retarded them in the new, among the natives. The improvements in navigation led to the overthrow of two empires in America which had attained considerable improvements; and if the natives which still remain are barbarous, we must, in justice to human nature, allow that the contempt with which the whites have always treated them, and the nefarious policy of encouraging their fury for intoxication, have proved the only cause of it. This produced such an effect, that the population of the indian nations had decreased more than a twentieth nearly a century ago, according to the account of Charlevoix.

While Spain was practising the most odious tyranny and sacrilegious inhumanity, under the cloak of a detestable religion, over millions of the miserable Americans, gorging an insatiable avarice in the glittering mines of the new world, England and France, with more humanity, opened settlements in North America. Other european powers had some part in these settlements; but, after several changes previous to the beginning of the present century, England seems to have been left in quiet possession of the country lying upon the Atlantic coast from East Florida to the Bay of Fundy. The French, in the mean time, were rearing a colony in the inhospitable and frozen forests of Canada. The ambition of Lewis XIV. and the dazzling scenery which the grandeur of his projects displayed, alone could have prompted that people to have persevered in so ruinous an undertaking. But in pursuing the great object of that voracious tyrant, the river St. Lawrence was ascended, Lake Ontario was traversed, the falls of Niagara were passed; and following the waters which lead to the Mississippi river, the delectable country of Louisiana opened in all the splendour and variety of its charms.

After the treaty of Utrecht, both nations continued quietly the

the object of aggrandizement. The plan of France was insidious. In possession of the mouth of the river Mississippi, which empties into the Gulf of Mexico about lat. 29° , and the river St. Lawrence, which empties into the sea between Cape North and the coast of Labrador, to the northward of lat. 48° , she seems to have contemplated the consolidation of this vast empire. Missionaries were everywhere employed to convert the natives; and so successful were they, that a person, even in times of hostility, speaking french, will find security, from the attachment of the people to every thing which is French *.

The miscarriage of the celebrated scheme of Law for settling Louisiana, for a time retarded the progress of that colossal plan. But the communication between Canada and Louisiana being fixed and secured by fortresses at Niagara and Detroit, and the Indians being universally friendly to the French, the features of the Titan were discovered in their erecting Fort du Quesne at the junction of the Monongehalia and Allegany rivers, which form the Ohio. This led to the war between England and France in the year 1755, as you may well recollect. But though that war terminated so gloriously for Great Britain, and securely for the then colonies, still we remained ignorant of the whole of the fine country lying between the high hills, which rise from Great Sandy river, approximate the Allegany mountain, and extending down the Ohio to its confluence with the Mississippi, and back to those ridges of mountains which traverse America in a S. W. b. W. direction, at length are lost in the flat lands of West Florida. However, indian traders, and certain men, called Long Hunters, from Virginia and North Carolina, by penetrating these mountains (which ramify into a country 200 miles over from east to west, called the Wilderness), were fascinated with the beauty and luxuriance of the

* The treaty with Spain, made in 1795, concerning the navigation of the Mississippi, will be found among the addenda of this edition.

country on the western side, which their enraptured imaginations could not find words sufficient to depict *. A grant had been sold by the six nations of Indians to some british commissioners at Fort Stanwix in 1768, which comprehended this country, and which afforded the Americans a pretext for a right to settle it; but it was not yet sufficiently known, and those indian nations who were not concerned in the grant, became dissatisfied with the prospect of a settlement which might prove so dangerous a thorn in their side, and committed some massacres upon the first explorers of the country. However, after the expedition of lord Dunmore in 1774, and the battle at the mouth of the Great Kanhaway, between the army of col. Lewis and the confederated tribes of Indians (in which these intrepid people suffered severely), they were in some measure quiet. The assembly of Virginia began now to encourage the peopling of that district of country, called Kentucky, from the name of a river which runs nearly through the middle of it †.

* The vales between the ridges of these mountains, have all one and the same general appearance, that of an amphitheatre, inclosing, as it were, an ocean of woods swelled and depressed with a waving surface, like that of the great ocean itself. Though the ridges of the mountains run in nearly parallel lines, yet at times, by the means of branchings and spurs of mountains, they every here and there seem to close, and where they do so, the land of the vale also rises in irregular hilly land, which is the circumstance that gives this general appearance of an amphitheatre to these vales, when from any of the mountains above one looks down into them. If the spectator has his stand on some high mountain, so as to look across any number of the ridges which may be less high than that he stands on, he then sees a repeated succession of blue and purple parallel waving lines behind each other, with now and then a breaking off or gap in them; here and there sudden endings of them in perpendicular bluff points and knobs, as they are called by the people; and sometimes high elevated peaks: all which, together with the general direction of the ridges, are points which mark the geography of the country to the Indians, and even in a very sufficient practical way, the general bearings to the geographical surveyor.—EDIT.

† This river is about 250 yards wide at its mouth, and is navigable for upwards of 130 miles; its current is considerably rapid.

This

This encouragement consisted in offering 400 acres of land to every person who engaged to build a cabin, clear a piece of land, and produce a crop of indian corn. This was called a settlement right. Some hundreds of these settlements were made; but, in the mean time, Mr. Richard Henderson, of North Carolina, a man of no inconsiderable abilities, and more enterprize, had obtained a grant from the Cherokee tribe of Indians for this same tract of country; and though it was contrary to the laws of the land for any private citizen to make purchases of the Indians, still Mr. Henderson persevered in his intention of establishing a colony of his own. To the inhabitants he intended to grant the power of making their own laws, while he retained the executive authority in his own hands. He actually took possession of the country, with many of his followers, where he remained pretty quiet, making very little improvement, Virginia being at that time entirely occupied with the war which had commenced between Great Britain and the Confederate States. Most of the young men from the back settlements of Virginia and Pennsylvania, who would have emigrated to this country, having engaged in the war, formed that body of men called Rifle-men; which not only checked the growth of the settlement, but so dried up the sources of emigration, that it was near being annihilated by the fury of the savages, who were hurried on by the emissaries of the government of Canada.

Though a considerable number of inhabitants had fled from the different states to this country, in search of an asylum against the calamities of the war on the other side of the mountains in 1778, 1779, and 1780, yet so distressed was the settlement during this last year, after a rigorous winter (which had been more than usually severe upon the continent), that the settlers judged right, when they determined to abandon the country for ever; but they were diverted from this step by a seasonable reinforcement of

emigrants, after having experienced every horror which a sanguinary war can produce.

The legality of Mr. Henderson's claim was investigated by the state of Virginia in 1781; and though there could be no sort of equity in it, he having acted in contempt of the state, the legislature, to avoid feuds or disturbances (for Henderson still had influence), agreed, as an indemnification for the expence and trouble he had been at, that he should be allowed a tract of country twelve miles square, lying in the forks of the Ohio and Green rivers; a tract of his own choosing.

Virginia gave farther rewards and encouragements at this time to the first settlers, for the perils they had undergone in the establishment of their settlement, of a tract of 1000 acres, called a pre-emption right, to be laid off adjoining to the settlement of 400 acres, the grantee only paying office-fees for the same*. At this period (*i. e.* 1781), a
land

* At this time, what was called continental currency, was reduced to as low a rate as 500 for one; nay, I believe 1000 was a more common exchange. This circumstance, though it had its good effects, so far as it tended to accelerate the settlement of the country, still was productive of no small degree of evil and injustice. For, in consequence of the great quantity of this money, which lay dead in the hands of individuals, it was no sooner known in the different states, that Virginia held out an opportunity to them of obtaining a consideration for this depreciated currency, than it was sent to the treasury of that state in such quantities, and given for land warrants, that in a short time more of them were issued than would have covered half the territory within its limits.

Previous to this æra, great part of the valuable land in the district of Kentucky, had been either taken up on old military grants, and pre-emption rights, or located by those who had been first in obtaining their warrants; for it required some time for the business to extend itself, and become generally known and understood.

In consequence, a large proportion of the holders of treasury warrants were disappointed, when they determined, if they could not obtain prime land, they would lay their warrants upon such as was vacant, however sterile; which doubtless was proper: for though the warrants had cost them only a nominal value, nor was the state
of

land office was opened by the state, granting warrants for any quantity of unlocated land, upon condition of certain
sums

of Virginia sensible of the dangerous avenue they were opening to fraudulent practices, yet it was possible; in an extensive tract of mountainous country, there might be in the vallies, or between the hills, some bottom land which, in the progress of settlements, would be of value. But they did not stop here; for finding a general spirit of migration was taking place from every part of the Atlantic, to the western country, and that the reputation of the fine lands upon the Ohio, particularly those of Kentucky, was every day advancing in estimation, they determined to have their surveys made out in the most artful manner, by having for corner trees such kinds as are never known to grow but in the most fertile soil (and which may always be found in the narrow strips of bottom land), and the plots embellished with the greatest elegance, displaying fine water-courses, mill-seats (where perhaps there will not be a grain of corn for half a century to come), plains, groves, and meadows.

Hence proceeded so generally the business of land-jobbing—hence it is that there are to be seen in the *Mercuries* throughout Europe, such immense tracts of land in America offered for sale—and hence it is that so many persons have cause to complain of having been deceived in the accounts which have been given of land they have purchased.

I had given such an account in this work, of the good and indifferent veins of land, which I believed would have directed every purchaser of such land against the danger of imposition; but as I have been informed that land-jobbers have considered it as a work favourable to their views, I shall here make some remarks, which, if attended to, will infallibly prevent frauds.

The country that separates the back countries of Virginia from Kentucky, is, the greater part of it, mountainous, and through which, to its champaign lands, is nearly 150 miles. The whole of that tract of wilderness extending from Holston nearly north, crossing Great Sandy river, the Great and Little Kanaways, quite into the fine lands in the district belonging to Pennsylvania, exclusive of some small tracts in the upper countries of Virginia upon the Ohio, all of which are occupied, is altogether broken into high, rugged, and barren hills, the bottoms excepted, and, in all probability, will not be inhabited for centuries to come, by reason of the immense tracts of good land lying west of the Ohio and Mississippi; and that tract of country lying southerly from Holston, and extending to Cumberland, Powell's Valley, Nolachucky, Frenchbroad, and Clinch excepted, is little better.

Besides, Kentucky itself extends a considerable distance into these broken tracts of country; and perhaps it is only possible for a stranger to guard against imposition, by making one of the condi-
tions

fums of the depreciated continental currency being paid into the treasury, at so much for an hundred acres. The great plenty, and little value, of this money, soon caused the whole country to be located *, which was one of the material causes of its rapid population.

It was necessary, in the management of this business, that care should be taken to prevent that perplexity and litigation, which the vague manner in which that business was executed in many instances, would necessarily produce. For this purpose, three principal surveyors were appointed, who were to lay, or cause to be laid off, by their deputies, the different locations within the limits of their districts: this being done, and recorded in the office, the original survey was sent to the deputy register's office, there to be recorded, where it must be six months; from which it was sent to the principal register's office at Richmond, the seat of government, there to remain three months, in order that any person having a claim, by virtue of a prior location, might have an opportunity to enter a caveat, and prevent a surreptitious grant from issuing. Commissioners were also sent to adjust the claims of settlement and pre-emption rights; by which means order was preserved, and the government of a

tions of his contract, that it shall be of such a rate of land, *i. e.* the different soils have been classed by the general consent of the people, and are well understood by the distinction of first, second, third, and fourth rate land; the last is the lowest rate, I am convinced, that any person would settle upon, and the difference of its value, in my opinion, is as two to one in the ratio of its rate.

Now, the greater part of the broken tracts of country would not come under either of these denominations; consequently, if these hints should be attended to, and sufficient security given for a performance of the contracting parties upon such principles, to which no honest person would object, imposition would be effectually prevented.

* It may here be necessary to explain to the english reader what is generally understood by this term in America. To locate, is there to particularize and correctly to describe the place of beginning, with the courses and distances of the natural and artificial metes and bounds of a given tract of land.

district

district of country, detached and separated at that time more than 200 miles from any other settled country—a country which had grown up under the devastation of a most barbarous indian and civil war, and under the miseries of famine and distress, settled by all orders of men in the United States, men of different interests and different politics—was preserved; and the order and quiet, which prevailed in 1784, was sufficient to have induced a stranger to have believed that he was living under an old settled government. Such is the science of jurisprudence, when it works upon simple but substantial springs. Hence arise harmony without expence, and equity without litigation. Here are no musty forms, to lead you into labyrinths of doubt and perplexity, no contradictory cases and reports to distract your opinions:—our decisions are governed by acts of the legislature, decreed upon the elementary principles of truth and justice.

After the peace between Great Britain and the United States in 1783, the settlement of Kentucky was considered as formed; but it was not yet determined, whether it was to be an appendage of Virginia, or not. The United States claimed the back country as the property of the whole union, which should be appropriated to the use of the federal government; but Virginia urged the right of the charter granted by James I. which describes its boundaries in this strange way:—To commence at a point southward of the capes of Chesapeak Bay, in lat $36\frac{1}{2}^{\circ}$, running due west from thence, then setting off from the said beginning, and running to lat. $37^{\circ} 57'$ upon the coast, which is a little to the northward of the said capes, and then running a north-west course. This indefinite grant, having no actual boundaries, seems to have originated in the belief of the times of its birth, *i. e.* that the Atlantic and Pacific oceans were divided only by a narrow tract of country. This grant formed a kind of obtuse angle, expanding as it advanced westward, and

comprehending the whole of the fine country on both sides of the Ohio. But, in order to adjust all disputes, the state of Virginia offered to concede the country westward of the Ohio, provided that other individual states, holding back lands, would give up theirs, and the whole of the country comprehended within the present limits of the state, on the eastern side of the river Ohio, should be guaranteed to them by Congress. This was done; and thus the federal government became possessed of all the back lands in America.

Thus stood matters respecting Kentucky about the latter end of 1783. As it is necessary for me to take a retrospective glance of the progress of peopling several other parts of the western country, I must beg your indulgence and time for another letter. In the mean time, believe me to be devoted to your wishes.

I am, most sincerely,

Your's, &c.

LETTER II.

MY DEAR FRIEND,

Kentucky.

THE memorable defeat of general Braddock retarded, for some little time, our opportunities of acquiring a further knowledge of the country on the sources of the Ohio. But the taking Fort du Quesne by general Forbes, in 1760, opened to the view of the colonies of that day a new world. Lands were granted by government to the army, for services done during the war, which, in a great measure, with the garrisoning Fort du Quesne (now called Fort Pitt), contributed to form the first english settlement upon the western waters.

After

After the treaty of Paris in 1763, by which Great Britain obtained a cession of East and West Florida, and all the country lying east of the Mississippi, with a right to navigate that river, frequent excursions had been made from that time down the Ohio and Mississippi to New Orleans. But in these excursions, which were by water, very little knowledge of the Kentucky country had been obtained, except at the Rapids, and some few other places upon the banks of the river.

Louisiana was well known, and many settlements were forming, previous to the late war, on the eastern side of the Mississippi, above and below the Natchez : some troops had been stationed in the Illinois, and at Post St. Vincent on the Wabash river, where the french inhabitants lived, and cultivated their little plantations, in the style of the patriarchs of old ; enjoying the charms of nature, decked in all the soft simplicity which the genial current of the human soul, unfophisticated by the alloy of european artifice, produces in such elegant and fascinating variety. They possessed all the social talents in an eminent degree : and their hospitality was ever enlivened with the charms of wit, and the exhilarating juice of the vine* ; which grew and flourished to such a degree as to produce wine for exportation†. These settlements still exist ; but the settlements upon the Mississippi that were made previous to the war, were broken up by Indians, who inhabit the country between Georgia and West Florida, called the Cherokee, Creeks, Chactaw, and Chichasaws nations. Besides, by the treaty

* " The Illinois country is in general of a superior soil to any part of North America that I have seen. It produces fine oak, hickory, cedar, mulberry-trees, &c. ; some dying roots, and medicinal plants ; hops, and excellent wild grapes ; and, in the year 1769, one hundred and ten hogheads of well-tasted and strong wine were made by the french settlers from these grapes."—

HUTCHINS.

† This may be true ; but it is the first that I have learnt of their even making wine for domestic use.—EDIT.

of 1783 between Great Britain and the United States, we acquired the country on the eastern side of the Mississippi river, only as low as the commencement of the 32d deg. or to the Natchez; so that those settlements could not be renewed by the Americans, as both East and West Florida fell into the hands of Spain by the same peace.

The southern limits of Virginia, being lat. $36\frac{1}{2}$ deg. are divided from North Carolina by a line of demarkation in a direct west line, until it strikes the Mississippi a little below its junction with the Ohio. The same ridge of mountains which separates Virginia from the western country, separates the Carolinas also; and on this side of the mountain, within the limits of North Carolina, the luxuriance of the soil, in some parts, is equally astonishing as that of Kentucky. When lord Cornwallis penetrated into the back parts of that state, many of its inhabitants began to fly over the mountains for security; and thus commenced the settlement called Cumberland, from the name of its river *, which is a considerable branch of the Ohio, and joins it not a great way from its mouth. This settlement began to form in 1780, and was encouraged by the same means as the settlement of Kentucky, *i. e.* by settlements and pre-emption rights; and now promises to become second in magnitude to Kentucky, of all the settlements upon the western waters, and in a few years, from its quick growth, will doubtless become a distinct state. Such is the rapidity with which this part of the world is peopling.

There are settlements still to the southward of this, in what is called the Great Bend of the Tenasee, or the Muscle Shoals, which have been made without the permission of the federal government. This is a fine tract of country, and in time must become very valuable, from its particular situation, and the peculiar manner in which the navigation

* Cumberland river is 250 yards wide at its mouth; its current gentle, and it is navigable upwards of 200 miles from its mouth.

of this country must be conducted, concerning which I shall expatiate in its proper place. Its proximity to the southern Indians renders it rather dangerous at present; but the growing strength of Frenchbroad and Nolachucky above, upon the waters of the same rivers, will soon afford security to every part of the Tenasee country.

The country of Holston is still above these settlements upon the head waters of the same river, on the borders of Virginia and North Carolina; and that you may form some idea of the prowess of those people, I will relate a circumstance, which, perhaps, is not generally known on your side of the water. When lord Cornwallis had advanced, in 1780, into the back parts of North Carolina, he detached colonel Ferguson, with about 500 british troops, to a place called King's Mountain, in order to give security to the *faithful* and *loyal* subjects of his Majesty, who were considerably oppressed by their *unfaithful* countrymen the *rebels*. Col. Campbell, a Virginian, who lived in those back settlements, hearing of the rendezvous of the loyalists, under the banner of col. Ferguson's detachment, at King's Mountain, assembled what militia he could, and began his march on horseback in the evening, without mentioning their destination; and by continuing their march, without intermission, for upwards of one hundred miles, came up with them the second morning, about the break of day, when their horses were left at the foot of the mountain with a small guard; his little army, divided into three detachments, were led to separate attacks, and in less than half an hour the hill was carried, col. Ferguson killed, and the greater part of his detachment made prisoners. Col. Campbell's army amounted to about 500; he took more prisoners. From such specimens, I think those people can have nothing to fear from McGilvery.

I have not related this story from vanity, or from the most distant idea that the Americans are in any respect superior to Englishmen; so far from it, that no man can
more

more warmly admire the true English than I do : but I have told it as a circumstance tending to prove, that men, feeling the spirit of liberty, are always superior to slaves ; and that a well-regulated militia are equal to the defence of a country without the expence of supporting a standing army, which is not the only inconvenience flowing from such a system. How much of the labour and ingenuity of a state is sacrificed by such a policy ! In how many instances have the laws and civil authority been trampled upon by the contumely and ignorance of men educated with none but military ideas and habits, and thereby the respect due to laws contaminated, and an indignant people awed by a martial phalanx ! While a good citizen feels his own insignificance, the patriotic heart mourns for the sacrilege committed upon their privileges, with that impunity which the patronage of a standing army affords to the executive power of a state.

We will now return to Kentucky, which is the key-stone of the settlements upon the waters of the Mississippi. The years 1783 and 1784 brought out vast numbers of emigrants from all parts of America ; particularly the latter year, when it was supposed that in Kentucky alone, not less than 12,000 souls became settlers : several Europeans from France, England, and Ireland, were among the number. The Indians gave us a respite, and there seemed to be nothing wanting to make us the happiest people upon earth.

In 1782 the state of Virginia had given us a general court, with judges and an attorney-general, to manage all legal affairs respecting the district, without the trouble and expence of travelling to Richmond, which is distant between five and six hundred miles, two hundred of which were through an uninhabited wilderness. In 1783, 1784, and 1785, great part of the country was surveyed and patented, and the people in the interior settlements pursued their business in as much quiet and safety as they could have done

in any part of Europe. Court-houses were built in the different counties, and roads were opened for carriages, which seven years before had not been seen in the country. The only roads hitherto were for single horses.

In 1785 the district had grown very considerable from the great number of emigrants which had arrived; and that respectability which it had acquired produced a disposition in the inhabitants to become an independent state, and to be admitted as another link in the great federal chain. A convention was immediately formed by sending deputies from the different counties, who met at our then metropolis, Danville, for the purpose of taking the matter into consideration; when it was determined, after some debating, to petition Virginia for that purpose. An act had already passed that state, authorising any district of country over the mountains to separate whenever a majority of the inhabitants should wish it: but in this instance it was urged, by those who were not friendly to the separation, that it was not the wish of the majority of the inhabitants of Kentucky to become independent*. In fact, many gentlemen, holding
con-

* "It was boldly asserted by lord Sheffield, in 1784, that the people of the interior country of America were mere nominal subjects, and would speedily imitate and multiply the examples of independence. The regular organization of the government of the territory north-west of the Ohio since that time; the arrangements made shortly after, for the erection of Kentucky into a separate state, with the consent of Congress and Virginia; the cession of the extensive country south of the Ohio to Congress in 1790, and its establishment as a kind of temporary fief of the general government, with civil offices appointed by the president, to be admitted into the union as an entire new member, when its population should be sufficiently numerous; the adoption of the federal constitution by a special convention of Vermont; and the formal admissions of this state and Kentucky into the american union, at their own desire, and by an act of the legislature of the United States; have, as far as possible, contradicted the prophecy.

"Another opinion, in regard to those distant scenes, is, that they can derive no benefit from the american states. At this moment, the arm of government is extended, and its funds are appropriated,

considerable tracts of land in the district, who were not residents, thought our separation would be premature, particularly as we had courts of justice, whose jurisdiction was distinct from that of Virginia; and the only solid complaint (which, indeed, was a serious one) was the distance to which we must send our representatives, and our local situation requiring in some instances a legislation, which the majority of the assembly of the state would not be competent to judge of. However, this business was procrastinated; for finding, though we might separate whenever we chose, yet that it was optional with the legislature of Virginia to recommend us to be taken into the federal government (which they were not likely to do, and which it was certain could not be done without), we were content to remain as we were for that time.

The federal government in the course of this year undertook to lay off the country west of the Ohio, in such manner as would answer the purpose of selling the land, and settling

priated, to protect them against the hostilities of the Indians: and the whole regular military force, which it has been thought necessary to support, was raised, and is now employed in their defence. The Atlantic rivers, from the Mississippi to the Mohawk, which nature has formed as the channels of their trade, can be cleared of natural and political obstructions only by the measures of the Atlantic states; and no less than eight several plans to that end are now in preparation or execution in as many different places, under the auspices of the five states, within whose territories the most favourable rivers and grounds have been placed by nature.

"A great and expensive turnpike road has been commenced by Pennsylvania, leading directly westward towards Pittsburg on the Ohio and Allegany (anno 1793). Congress alone can effect the relinquishment of the posts, the keys of the western country. The improvement and opening of the many necessary roads, leading westward, must be done by the acts of the Atlantic states, and by their funds. Not a year elapses without several appropriations of money to this object. By a sincere, just, and close union between the inhabitants of the western country and those upon the sea coasts, both parties will avoid those expensive, bloody, and frequent struggles, which everywhere disgrace and injure adjacent states."—Tench Coxe's View, p. 205, 206.

the country. Peace had been made the preceding year at Fort McIntosh, between the United States and the Indians, in which the country upon the Muskingum, Scioto, and the Great and Little Miami rivers, had been given up by the Indians as a consideration for former massacres, and as necessary to produce permanent tranquillity; they finding the United States, by cession from Great Britain, had a right to all the country within the limits described in the treaty of 1783, and that it would be in vain for them to remonstrate against their peopling it, particularly as it was to Great Britain they were to look for restitution, who had abandoned them when allies, and sold their country without even consulting them. But when the surveyors began to act, the Indians discovered immediate and hostile signs of disapprobation, some massacres were committed, and the business was put off until the following spring.

Congress as yet had taken no decided measures as to the organization of this country, or the mode of parcelling it out, and disposing of it; the discontinuance of the late war was still recent, and the multifarious objects which presented themselves to an infant government, not recovered from the shocks of a doubtful credit, together with the habitual idleness which the profession of arms produces, threw an embarrassment over all their proceedings. It was in this dilemma that they recommended the meeting of a convention, to be composed of deputies from the different states, to assemble in Philadelphia in May 1787, to take into their consideration the nature and defects of the federal government as it then existed. In this examination they found that the old government wanted efficiency; and the total absence of union between the different states, from local laws and customs, was productive of delay, and a variety of obstructions, tending to counteract the concord of confederation.

It was under these considerations that the present federal

government arose. It has established one great and important principle for the benefit of mankind, and the extension of civilization, which is, that a power may so exist in a government, as to admit of alteration or change, without danger to the tranquillity of the state, by government recommending to the constituent powers of that state, the deputing men to inquire into the radical defects of their constitution, and making such alterations as the improved wisdom of experience may find necessary. It is thus in the progression of things that governments will arrive at perfection.

I must beg that you will excuse this digression, as it was necessary to account for the delay in proceeding to the settlement of the country west of the Ohio. This business took up the greater part of 1787, so that it was a year or more before much was done. In the mean time the Indians continued to increase their depredations, under a belief, that if once the whites were suffered to establish themselves on their side of the Ohio, there would be no end to their encroachments until they should be extirpated. In this opinion they were not a little encouraged by the english traders at Detroit and Niagara, who, from an avarice in human nature hard to be accounted for * (but as it degenerates under bad laws and worse morals), seek, in murder and bloodshed, for the sale of a few extra pounds of gunpowder and lead †. However, some land had been surveyed in 1786 and 1787, and in the latter year a settlement was formed upon the

* It is not more difficult to account for the avarice of the indian trader, whether he lives within or without the american line, than it is for the same principles and motives which regulate all the merchants and store-keepers of the United States.—EDIT.

† This is a mere rhapsody, and means nothing, unless it is to delude the multitude: powder and lead are become as necessary to the meliorated condition of the Indians as blankets and other wearing apparel, which constitute at least three fourths of the value that is given by Europeans in exchange for their furs and peltry.—

EDIT.
MUS-

Muskingum, which may be looked upon as the commencement of the american settlements upon the western side of the Ohio *. In 1788 and 1789 some farther surveying was done; but little since has been transacted in those parts, except wars between the Indians and settlers. Yet it is to be hoped that the decided measures taken by the United States will secure peace, which cannot fail to promote prosperity.

Nature in her pride has given to the regions of this fair river a fertility so astonishing, that, to believe it, ocular demonstration becomes necessary. During these times of bar-

* The Muskingum river at its junction with the Ohio is about 200 yards wide, and is rendered particularly curious from the ancient fortifications which lie about a quarter of a mile from the upper point of the mouth of the river, and within the ground-plot of the city of Marietta. These works are very extensive, and evidently mark the ingenuity of man in very remote and former ages. They consist of three distinct squares, communicating with each other by a covered way, and again by another covered way 200 yards in length, connecting the largest and principal square with the old bed of the Muskingum river, whence the present river is distant, in some places, about 100 yards.

These squares are formed by a ditch and parapet upon a principle similar to that with the entrenched wall called the Devil's Ditch, on Newmarket heath, and were evidently designed as posts of refuge and defence to the ancient inhabitants. There are here several mounds still retaining a conical figure, and forming the sepulchres of a people far more advanced in civilization than any which have yet been discovered in this part of the continent. There is one of these cones which challenges a more particular description than the rest: it stands in the middle of the centre square of the city, is much higher, and more regularly uniform, than any of the others. In its present settled state, there is plainly to be seen a glacis, and a parapet about four feet higher than the surrounding land. Within the parapet is a ditch, twelve feet wide, and about three feet below the general surface of the country. This ditch extends round the base of the cone, which has a diameter of fifty feet, and a perpendicular height of thirty-five feet from the bottom of the ditch. The sides of the mound are formed to a mathematical exactness; along which, to its highest point, have grown for ages past, and regularly gone to decay, some of the richest and finest timbers of the forest, producing an increment of vegetable mould, nearly equal in depth to that which forms the whole surface of the surrounding country.—EDIT.

barous war and massacre, the people of Kentucky and Cumberland, secured by their numbers and strength, except in their outermost plantations, enjoyed perfect security. The former continued to keep in view the object of her independence; and from the respectable figure she has made in the administration of her affairs, it is at length agreed, that she is to be admitted into the federal union in June 1792.

Having furnished you with only an imperfect history of the manner in which this back country has been settled, I will endeavour, in compliance with your request, to give you a description of its natural and artificial productions. Believe me to be, sincerely,

Your's, &c.

LETTER III.

MY DEAR FRIEND,

Kentucky.

IN casting your eyes over the map of America, you will discover that its western (or middle) country is divided from the Atlantic country by a chain of mountains which rise in the remote parts of the states of New York and New Jersey, and run a south-westerly course, until they are lost (as I observed before) in the flat lands of West Florida. The western country is those parts which are watered by the streams running into the Mississippi.

It is about fifty miles over the Allegany mountain, crossing by the route which general Braddock took from Fort Cumberland near the Potowmac, at the descent into the country of Redstone, on the Mononghala, the southern branch of the

the Ohio. This river rises in the same mountain considerably to the southward, runs nearly parallel with it, the opposite way, upwards of one hundred miles, and is navigable for boats nearly to its source; the whole of this country beyond the mountain is extremely fertile, well watered, and abounding with all kinds of timber calculated for building houses, boats, cabinet work, &c. &c. The sugar maple tree is intermixed in great quantities *. From the foot of the mountain

* See "An account of the sugar maple tree of the United States, and of the methods of obtaining sugar from it; together with observations upon the advantages, both public and private, of this sugar. In a letter to Thomas Jefferson, esq. secretary of the United States, and one of the vice-presidents of the American philosophical society, by Benjamin Rush, professor of the institutes, and of clinical medicine, in the university of Philadelphia."—The subject of this excellent paper seems, at first sight, more particularly to relate to the United States; but it may, and we hope will, very essentially affect the general state of the world, by increasing the supply of an article, of which the uses are yet, on account of its high price, but imperfectly known. If the monopoly of the West India islands, where alone the wasteful culture by slaves, in the absence of the owner, can be supported, should be gradually diminished, and at last abolished, by a plentiful produce of sugar from the maple, humanity would no longer suffer, the article would find its true level, and every nation would be more or less benefited.

The *acer saccharinum* of Linné, or sugar maple tree, grows in great quantities in the western countries of all the middle states of the American union. It is as tall as the oak, and from two to three feet in diameter; puts forth a white blossom in the spring, before any appearance of leaves. Its small branches afford sustenance for cattle, and its ashes produce a large quantity of excellent pot-ash. Twenty years are required for it to attain its full growth. Tapping does not injure it; but, on the contrary, it affords more syrup, and of a better quality, the oftener it is tapped. A single tree has not only survived, but flourished, after tapping for forty years. Five or six pounds of sugar are usually afforded by the sap of one tree, though there are instances of the quantity exceeding twenty pounds. The sugar is separated from the sap either by freezing, by spontaneous evaporation, or by boiling. The latter method is the most used. Dr. Rush describes the process, which is simple, and practised without any difficulty by the farmers.

From frequent trials of this sugar, it does not appear to be in any respect inferior to that of the West Indies. It is prepared at

mountain it is about fourteen miles to Redstone Old Fort, which is on the banks of the Monongehala, and the usual place of embarkation of people coming down the Ohio, who travel Braddock's road; from thence to Pittsburg is about fifty miles by water. Large tracts of flat land lie all along upon the banks of this river from the Old Fort to Pittsburg, which are capable of being made into extensive and luxuriant meadow ground.

This country is populous, it being the oldest settlement, and made immediately after taking Fort du Quesne. The Yohegania empties itself into the Monongehala about sixteen miles above its junction with the Allegany river: the country on this river is more uneven, but in the vallies the soil is extremely rich. Near to Pittsburg the country is well peopled, and there, as well as in Redstone, all the comforts of life are in the greatest abundance. Flour is manufactured in as good a style as in any part of America; and butter, cheese, bacon, and every kind of provisions, can be had in the greatest quantity. This whole country abounds in coal, which lies almost upon the surface of the ground: the hills opposite Pittsburg, upon the banks of the Monongehala, which are at least three hundred feet high, appear to be one solid body of this mineral.

This must become in time the most valuable grazing country in all America, from the fertility of its soil, its capability of being formed into extensive meadows, and its proximity

a time of the year when neither insect, nor the pollen of plants, exists to vitiate it, as is the case with common sugar. From calculations grounded on existing facts, it is ascertained, that America is now capable of producing a surplus of one eighth more than its own consumption; that is, on the whole, about 135,000,000 pounds, which in the country may be valued at 15 pounds weight for one dollar. Dr. Rush mentions many other benefits his country may derive from this invaluable tree, and concludes his paper with an account of some of the advantages of sugar to mankind, not merely as commonly considered to be a luxury, but as an excellent, wholesome, and nourishing article of food,—EDIT.

to the mountains, which attract the clouds, and produce that moisture so necessary to grass;—besides which, its situation is about three hundred and twenty miles from Philadelphia, about two hundred and forty from Baltimore, and about two hundred and twenty from the federal city on the Potowmac, a distance which is too great to carry by land the bulky articles of husbandry; but to which cattle may be driven with the greatest ease.

This country has derived no inconsiderable advantage from the settlement of Kentucky, and the other settlements that are making on the Ohio and Mississippi, the great road of migrating from the northern states lying through it; and indeed it is most convenient, both from Maryland and Virginia, at all seasons of the year, provided that there be any thing bulky to carry, the passage being for the greatest part by water, and the Potowmac navigable, a few places excepted, to Fort Cumberland; all of which obstructions will be removed in a few years by canals that are cutting*. From Fort Cumberland it is about sixty miles land carriage to Redstone Old Fort; but so friendly has nature been to this country, that, though it is without seas, the rivers run in such directions that there is scarce any place in all the back parts of America where art may not reduce the land carriage to a very small distance. I cannot speak upon so general a subject definitively; but I mean to be understood within fifteen leagues. It is asserted, from the best authorities, that the land carriage between the Potowmac and Ohio may be reduced to less than twenty miles.

Such is the progression of things in this country, while there was apparently no market for its superfluous productions, that every article has sold extremely well, in consequence of the number of emigrants who have been continually passing down the Ohio.

* Those canals were to be finished in the course of 1793.

Down from Pittsburg the country is flat on the banks of the river; but a little distance from them it is considerably broken, particularly on the north-western side. Much good land, however, is interspersed on the south side as far as the approach to the Little Kanhaway, where the nature of the soil seems reversed, and the good land is then found on the western side upon the Muskingum. There are some strips of rich land upon the Little Kanhaway; but, farther up the river, the country is broken and steril, producing scarce any other timber than the fir-tree, or pine, and knotty black oaks, which are generally deemed symptoms of a bad soil*. This tract of bad land extends quite into the mountains in a south direction, and runs south-westerly as far as Great Sandy river, with little or no variation, except on the bottoms of the Great Kanhaway†, which are extensive and rich. The bottoms

* The beneficial effects of the *cassia chamæcris*, in recruiting worn-out lands, and enriching such as are naturally poor, are described as follows, by Dr. James Greenway, of Dinwiddie county, Virginia:—In Maryland and Virginia they have long been in the practice of sowing a pint of the beans of this plant with every bushel of oats on poor lands. The oats ripen, and are cut in July, when the beans are young, and escape the injury of the scythe. They flower in August and September. In October the leaves fall off, the seeds ripen, and the pod opens with such elasticity as to scatter the beans to some distance around. The year following, the field is cultivated with corn; the beans which sprout early are all destroyed with the plough and hoe; but the more numerous part not making their appearance above ground until the corn is laid by, spring up unhurt by the instruments of agriculture, and furnish seed for the ensuing year, when the field is again sowed with oats. By this alternate cultivation of corn and oats with the beans, the land is so far improved by the mouldered leaves and stalks of the beans, that the product will be fifteen bushels to the acre on such as, prior to this management, would not have produced more than five. Dr. Greenway is of opinion, grounded on experience and observation, that the common field-pea is preferable to every thing else in improving lands, if the vines be left to rot on the ground, instead of being given to cattle for fodder.—EDIT.

† This river, at its mouth, is nearly 500 yards wide, and the current gentle for about 10 or 12 miles, when it becomes considerably rapid for upwards of 60 miles farther, where you meet with the

toms on the Ohio are everywhere extensive and luxuriant. On the western side of the river, the country beyond the rich vein of land on the Muskingum is only tolerable on this side of the head waters of the Scioto, which are succeeded by as fine a body of land as the imagination can paint. This extends considerably near to the Ohio, and running westward quite to the Miami, now approximates its banks, and displays, in its verdure and variety of majestic forests, all that beauty and richness, which have been so much celebrated by travellers who have passed through them. The country on the eastern side, except on the banks of the rivers, is indifferent. There is a body of good land on Great Sandy; but leaving that in a south-westerly course, high, rugged, and broken hills arise, which will hardly ever be capable of cultivation: these hills extend between thirty and forty miles, and open into the fine lands of Kentucky.

We have travelled now about five hundred miles down the Ohio in its meandering course, and we will suppose ourselves at Limestone, where the champaign country on the eastern side of the river begins. This is the usual landing-place for people coming down in boats, who mean to settle in the upper part of the state, as I shall in future call it. It is now necessary to look back to that country, which we have travelled through with such rapidity. Pittsburg lies in about lat. $40^{\circ} 40'$, the general course of the Ohio is about W. S. W. and the distance by land from Pittsburg to Limestone is nearly 300 miles. But as the north-eastern limits of the state are Great Sandy*, which is some distance above Limestone, we may fix them, as nearly as can be, in lat. 39° . I am sorry I cannot speak with more precision; but these things have not yet been ascertained from observation.

the first falls, when it becomes almost impossible to navigate it, from the great number of obstructions which its various cataracts present.

* Balclutha, in main forks of Big Sandy river, lies in $38^{\circ} 39'$ north latitude.—EDIT.

The

The east side of the Ohio, for about ten or twenty miles below Wheeling, which is about one hundred below Pittsburg, is generally well settled. There are few settlements on the opposite shore until you come to the Muskingum, and the country now wears the face of a wilderness on both sides of the river, there being no habitations worth notice, except at the mouth of the Great Kanaway, until we arrive at Limestone.

Every thing here assumes a dignity and splendour I have never seen in any other part of the world. You ascend a considerable distance from the shore of the Ohio, and when you would suppose you had arrived at the summit of a mountain, you find yourself upon an extensive level. Here an eternal verdure reigns, and the brilliant sun of lat. 39°, piercing through the azure heavens, produces, in this prolific soil, an early maturity which is truly astonishing. Flowers full and perfect; as if they had been cultivated by the hand of a florist, with all their captivating odours, and with all the variegated charms that colour and nature can produce, here, in the lap of elegance and beauty, decorate the smiling groves. Soft zephyrs gently breathe on sweets, and the inhaled air gives a voluptuous glow of health and vigour, that seems to ravish the intoxicated senses. The sweet songsters of the forests appear to feel the influence of this genial clime, and, in more soft and modulated tones, warble their tender notes in unison with love and nature. Every thing here gives delight; and, in that mild effulgence which beams around us, we feel a glow of gratitude for that elevation our all-bountiful Creator has bestowed upon us. Far from being disgusted with man for his turpitude or depravity, we feel that dignity nature bestowed upon us at the creation; but which has been contaminated by the base alloy of meanness, the concomitant of european education; and what is more lamentable is, that it is the consequence of your very laws and governments.

You

You must forgive what I know you will call a rhapsody, but what I really experienced after travelling across the Allegany mountain in March, when it was covered with snow, and after finding the country about Pittsburg bare, and not recovered from the ravages of winter; there was scarcely a blade of grass to be seen; every thing looked dreary, and bore those marks of melancholy which the rude hand of frost produces. I embarked immediately for Kentucky, and in less than five days landed at Limestone, where I found nature robed in all her charms.

It naturally struck me there must be something in climate that debased or elevated the human soul; and that chill penury which a sterile country and damp cold climate produces, in accumulating the wants of men, had increased their dependence, which at once saps the first principles of man. I conceived, in the infancy of the world, that men in temperate climates had retained their freedom longest. Thus in England you have enjoyed a considerable share of liberty, while almost all Europe have suffered under the fetters of an odious despotism. The perfection of arts will meliorate the condition of man in every part of the world; but the amelioration of government and education must take place before he will be able to resume his pristine dignity.

From Limestone to Johnson's Fork of Licking creek, the country is immensely rich, and covered with cane, ryegrass, and the native clover*. The cane is a reed that grows to the height frequently of fifteen or sixteen feet, but more generally about ten or twelve feet, and is in thickness from the size of a goose-quill to that of two inches

* From Johnson's Fork, passing the Lower Blue Licks, and Main Licking river, till you approach within 5 miles of Hington Fork, the land is very thin, stony, and broken; but thence to Bourbon Court-house and Lavington as rich and as well-conditioned land as any in nature. Main Licking river is about 200 yards wide at its mouth, and its principal branch is navigable nearly 100 miles.

diameter;

diameter; sometimes, yet seldom, it is larger. When it is slender, it never grows higher than from four to seven feet; it shoots up in one summer, but produces no leaves until the following year. It is an evergreen, and is, perhaps, the most nourishing food for cattle upon earth. No other milk or butter has such flavour and richness as that which is produced from cows which feed upon cane. Horses which feed upon it work nearly as well as if they were fed upon corn, provided care is taken to give them once in three or four days a handful of salt; otherwise this food is liable to heat, and bind their bowels. The rye-grass, or, more properly speaking, *wild rye*, when it arrives to maturity, is from two feet and a half high to three and a half, and the head and beard resemble the real rye, and sometimes produce a small grain long and slender, not unlike rye*. Whether cultivation would bring it to the same perfection, I can form no idea; it is however certain that it is a very good and valuable grass. The clover is in no respect different from the clover in Europe, but as it is more coarse and luxuriant. There is a variety of other kinds of grass, which are found in different places; but I have only mentioned the two former, they being esteemed the most valuable.

* Mr. Gist, in his journal, says, that in some of the plains of the Oillinois country, a species of wild rye grows spontaneously; that it shoots in winter so as to appear green through the snow, though two feet deep. It were to be wished that experiments were made as to the cultivation and melioration of it. The wheat plant, which now in its cultivated state gives bread to great part of the human species, was most likely brought to this state by some such cultivation, from some such humble wild plant. Upon this, governor Pownall observes, that it is a curious and singular fact, that no history furnishes us with any account of the native place of this plant as indigenous; the present editor of this work is happy in being able to assure the reader, from the mouth of Mr. professor Pallas, who explored this matter on the spot, that the native place of wheat is the parts about Thibet, and that there it is indigenous.

EDIT.

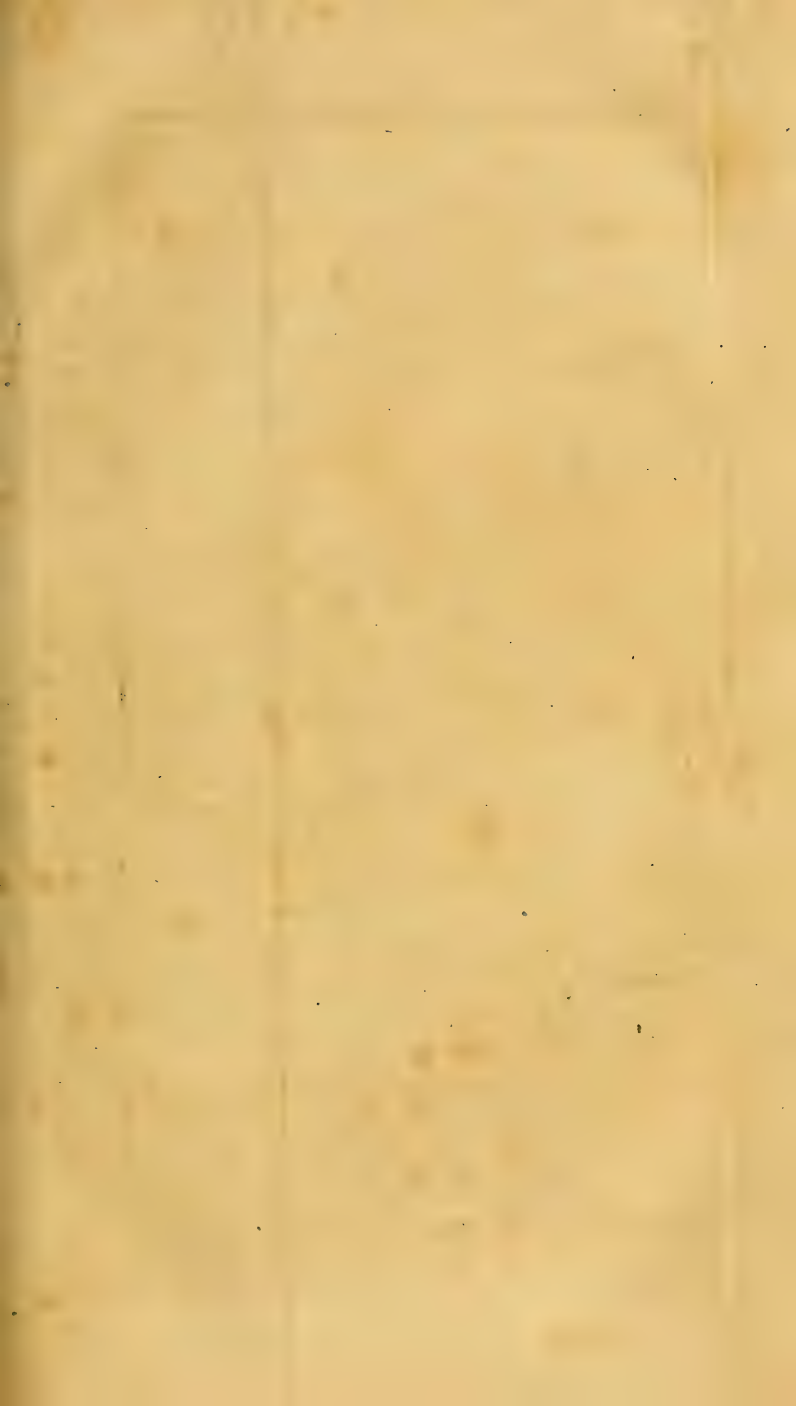
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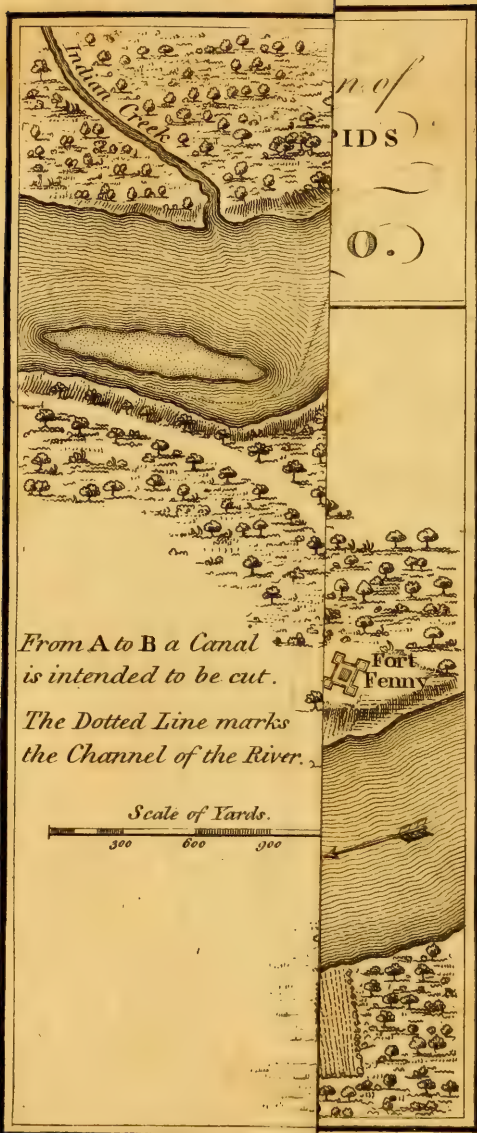
In order to travel into the interior parts of the state, the route lies across the branches of Licking creek. There are several of them which take their rise in the high hills of Great Sandy, and the spurs of the Allegany mountain; they traverse a most delightful country, and form a junction a small distance below the Lower Blue Lick*. A salt spring is called a Lick, from the earth about them being furrowed out, in a most curious manner, by the buffalo and deer, which lick the earth on account of the saline particles with which it is impregnated. The country from the Fork to the Ohio is considerably broken, but generally rich, and continues uneven, except on the banks of the river, quite to the mouth of the Kentucky, which is about one hundred and ten miles below the mouth of Licking creek by water, and seventy above the Rapids of the Ohio. Between the mouths of Licking and Kentucky lies the Great Bone Lick, which is justly celebrated for the remarkable bones which are found there, and which give name to the place. Several of those bones have been sent to Europe; but I believe no person who has written upon natural history has given any decided opinion to what class of animals they belonged. Buffon has called them the Mammouth; but I am at a loss to know from what authority, as we have no tradition, either oral or written, that gives an account of any species of animals which were as large as those must have been, judging by the magnitude of the bones. Buffon says, that similar bones have been found both in Ireland (if I am not mistaken) and in some part of Asia. It appears somewhat extraordinary, at the first view, that we should discover manifest proofs of there having existed animals of which we can form no adequate idea, and which in size must have far exceeded any thing now known upon earth; and those signs too, in cli-

* There are two salt springs upon Licking, both of which are now worked with success.

mates where the elephant (the largest animal now in existence) is never found. Every phenomenon upon the earth tends to confirm the idea, that it ever has been subject to revolutions, besides its diurnal and annual motion from east to west.

After passing the Blue Lick, the soil, if possible, increases in richness. From thence to Danville is about fifty miles. Lexington lies about midway, and is nearly central of the finest and most luxuriant country, perhaps, on earth. From Lexington to Leesburg is about twenty miles; to Boonsburg it is about twenty; the Upper Blue Lick nearly thirty. This square, which is nearly fifty miles, comprehends entirely what is called first rate land. Leesburg lies on the Kentucky, about twenty miles from its mouth by land, and nearly forty by water. The country between that and the Ohio is broken, but rich, though it is not deemed a valuable body of land. The Kentucky is bound everywhere by high rocky precipices, that are generally two hundred feet and upwards perpendicular, and which makes its passes difficult. Few places on it have any bottom land, as the rock rises mostly contiguous to the bed of the river; which confinement, after heavy rains, renders it very formidable from the impetuosity of its current. On ascending the banks of this river, the land on either side is equally good for some distance above Boonsburg; but adjacent to the mountains from whence the river rises, the country becomes broken, sterile, and of little or no value. Boonsburg lies on the Kentucky, about sixty miles above its mouth by land, and about one hundred and thirty by water. From Leesburg down the river on the south side, for about ten or twelve miles, the hills are considerably high and steep; but when you pass the waters of Drinnon's Lick creek, you fall into a body of good champaign land, which extends, with little variation, to the Rapids of the Ohio. From
Leesburg





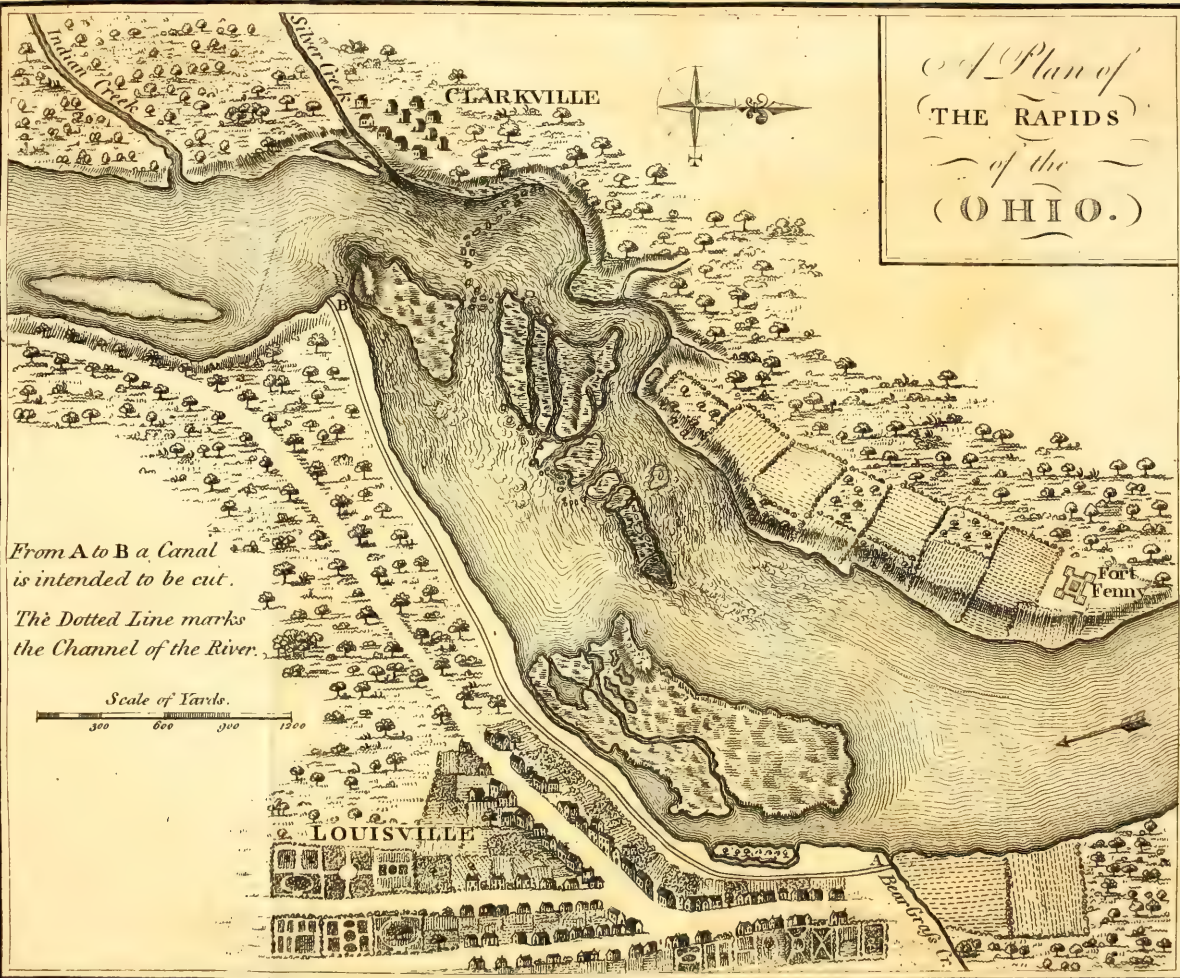
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Leesburg to Danville, the country, for the first twenty miles, is, comparatively, of an inferior rate of land ; but farther on, you get into the rich country I have mentioned, comprehended within the square of fifty miles.

Large bodies of good land lie on every side of Danville for twenty miles and upwards ; but in the course from thence to the Rapids of the Ohio, on the waters of Salt river (which takes its name from a salt spring, called Bullitt's Lick, that is on its banks, about twenty miles from the mouth of the river), the surface is, in some places, broken into ridges of hills, which are in general good land, but not well watered. As you approach the Rapids, it becomes more level, better watered, and the soil more fertile. The country of Beargras is beautiful and rich ; as, indeed, is the land on Goose and Harrod's creeks. In the fork of the Ohio and Salt river, which form a junction about twenty miles below the Rapids, the prospect is flat, and interspersed with small lakes, or ponds, occasioned by the extreme lowness of the banks of the Ohio in this fork, which, when flooded, overflows the country, and the water fills these ponds periodically, or as often as those inundations happen, and which are frequent from December until April.

The Rapids of the Ohio lie about seven hundred miles below Pittsburg, and about four hundred above its confluence with the Mississippi. They are occasioned by a ledge of rocks that stretch across the bed of the river from one side to the other, in some places projecting so much, that they are visible when the water is not high, and in most places when the river is extremely low. The fall is not more than between four and five feet in the distance of a mile ; so that boats of any burden may pass with safety when there is a flood ; but boats coming up the river must unload ; which inconvenience may very easily be removed by cutting a canal from the mouth of Beargras, the upper side of the Rapids, to below the lower reef of rocks, which

A Plan of
(THE RAPIDS)
of the
(OHIO.)



T. Conder Sculp.

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is not quite two miles, and the country a gentle declivity the whole way. A view of the Rapids is given in the annexed plate, in which is marked the proposed canal.

The situation of the Rapids is truly delightful. The river is full a mile wide *, and the fall of water, which is an eternal cascade †, appears as if nature had designed it to shew how inimitable and stupendous are her works. Its breadth contributes to its sublimity; and the continually rumbling noise tends to exhilarate the spirits, and gives a cheerfulness even to sluggards. The view up the river is terminated, at the distance of four leagues, by an island in its centre, which is contrasted by the plain on the opposite shore, that extends a long way into the country; but the eye receding, finds new beauties, and ample subject for admiration, in the rising hills of Silver creek, which, stretching obliquely to the north-west, proudly rise higher and higher as they extend, until their illumined summits imperceptibly vanish. Clarkville, on the opposite shore, completes the prospect, and from its neighbourhood, and from the settlement forming upon the officers land, a few years must afford us a cultivated country, to blend appropriate beauty with the charms of the imagination. There lies a small island in the river about two hundred yards from the eastern shore; between which and the main is a quarry of excellent stone for building, and in great part is dry towards the end of the summer. The banks of the river are never over-

* Major Willis, whilst commanding at Fort Ferring, measured a straight line upon the ice directly across the falls in their widest part, and found 1300 yards clear water-way, between the lower beaches or counter-shores of the banks on both sides the river.—EDIT.

† So far from its being an eternal cascade, at the time of a pretty smart fresh, and when the Ohio is full from bank to bank, no appearance of a fall, or even ripple, is to be seen: at those times a seventy-four gun ship may pass the falls with the greatest safety; and in the dryest seasons the navigation is never impeded on the north-west side. Kentucky boats, freighted for New Orleans, with forty, sixty, or eighty hogheads of tobacco, may always pass with safety.—EDIT.

flowed

flowed here, they being fifty feet higher than the bed of the river. There is no doubt but it will soon become a flourishing town: there are already upwards of two hundred good houses built. This town is called Louisville.

I omitted to mention, that when the state of Virginia conceded the territory west of the Ohio to the United States, she reserved a tract lying opposite to the Rapids, for those officers and soldiers called state troops, and who had been immediately employed in the western country.

Having left the western side of the Ohio at the Miami, I shall continue my description of the country on this side, as far as my knowledge extends, and will then proceed upwards.

In leaving the Rapids in a south-westerly direction, the country is flat, it bordering upon the country I have described in the fork of the Ohio and Salt rivers. After passing the main branch of the Salt river *, near Bullitt's Lick, ten miles distant, in the fork of the north and south branches, the country becomes broken and hilly; but between which and the Cumberland road, that leads from the upper parts of Kentucky, there is a considerable extent of fine land; but travelling a few leagues farther southward, you arrive at extensive plains, which stretch upwards of one hundred and fifty miles in a south-west course, and end only when they join the mountainous country. Some few clumps of trees, and a grove here and there, are the only obstructions to a boundless horizon. It is pleasant to behold the deer bounding over the scraggy shrubs which cover the earth. While the setting sun gilds those extensive plains, the mild breezes of a summer's eve, playing upon the enraptured senses, softens the heart to love and friendship. Unperceived, upon some eminence, you may enjoy the sports of wild animals, which here rove unconcerned lords

* This river is about 150 yards wide at its mouth, its current is gentle, and its principal branch is navigable about 60 miles.

of the field. Heavens ! what charms are there in liberty ! Man, born to enslave the subordinate animals, has long since enslaved himself. But reason at length, in radiant smiles, and with graceful pride, illumines both hemispheres ; and FREEDOM, in golden plumes, and in her triumphal car, must now resume her long-lost empire.

We now have arrived upon the waters of Green river : at the mouth of which, and between that and the Ohio, lies Henderson's grant of twelve miles square, as I mentioned. The plains extend beyond the head waters of this river quite into the limits of North Carolina ; but at the mouth, and for forty miles above, there is a large proportion of good land, particularly upon Panther creek. From the mouth of Green river * up the Ohio to Salt river, the land upon the banks of the Ohio is generally fertile and rich : but leaving its banks you soon fall into the plain country, which is considered as little better than barren land. However, it is most likely that it will prove excellent for sheep to feed upon, the climate being nearly the same as that of Spain, where the finest wool in Europe is produced. And though the land is not reckoned valuable in this country, on account of its comparative sterility, yet it is of a superior quality to much of the soil in the lower parts of Virginia, the Carolinas, and Georgia. It abounds with hazel, which, it is well known, never grows kindly in a poor soil.

The native strawberry is found in these plains in the greatest abundance, as are likewise plums of different sorts ; and if from the native grape that grows spontaneously here, we can form any idea of what the same soil is capable of producing when they are cultivated, it would appear that no climate or soil in the world is more congenial to the vine ; for I have never tasted more delicious grapes ; and it is

* Green river is upwards of 200 yards wide at its mouth, its current is gentle, and it is navigable nearly 150 miles.

the opinion of some judicious foreigners, who have visited these genial regions, that as good wine as can be made in any part of the globe, might be produced from the native grape properly cultivated †. There is nothing more common than to meet with a pleasant wine made here by the settlers, who know nothing of the use of vats, or the degree of fermentation necessary to the perfection of the art of wine-making. But, I flatter myself, some progress will be made in this business, as several foreigners have long had it in agitation to undertake it.

The country between Green and Cumberland rivers is generally rich, and finely watered. There is in it a most valuable lead mine, and several salt springs; and between Green and Salt rivers there are two of a bitumen, which, when analysed, is found to be amber. But so much do we stand in need of chymists and mineralists, that we remain ignorant of the properties and value of many fossils which have been discovered; and many continue unknown, I ap-

† The grapes of the european vines which are transplanted to America do not so well bear the sudden changes of the weather, nor the extremes of the dry and wet, to which the climate is liable, as the native grapes. If there be much thunder, and that attended with heavy showers, and followed by excessive gleams of heat, at the time that the exotic grapes are growing to their maturity, such grapes are apt to burst; whereas the thick skin of the native grapes preserves them against this mischief. When therefore I have seen with what abundant luxuriance these native vines grow, and have been taught that the coarsest fruits by cultivation may be meliorated even into sorts that are delicious; when I have read how change of soil and cultivation have succeeded; I have always thought that the american settlers would do more wisely in trying to cultivate and meliorate their native vines, small and sour as their grapes may appear at present, than by endeavouring to force the nature of the foreign vine. It takes always a great time to accommodate an exotic to a foreign clime, and does not always succeed at last; the native, whose nature is already assimilated to its own clime, might sooner, and with better hopes of success, be improved under the present state and progress of american cultivation. See Mr. Anthill's observations on the culture of the vine, in the Transactions of the Philosophical Society at Philadelphia, vol. i.—EDIT.

prehend, from the want of curiosity of men whose only object seems to be cultivation, and the science of government. Perhaps these are the most essential to the happiness of men in the wild state which this country is in. Arts appear to follow population. Necessity has been the mother of invention, it is true; but from the attainment of that perfection to which we have arrived in arts and philosophy, wisdom and science must go forward. It is physically impossible for man to degenerate to barbarism.

When the greatest merit consists in the exercise of the most useful and appropriate talents, I think it is likely that the ingenuity of men will feel a more lively stimulus to the exercise of invention from the love of fame, the love of mankind, and regard to their own dignity, than it ever yet experienced from necessity. While odious distinctions exist, and men are rewarded in proportion to their servility, human nature must be robbed of half its manliness, and consequently men will be slothful. How many drones do we observe in every part of Europe, who feed upon the industry of the necessitous, who work only as it is necessary to their existence! Such have been the effects of the factitious duties of man in your hemisphere, that every thing has become perverted; and governments, instead of securing happiness to men, have only tended to aggrandize individuals; and thus has flowed in that debasement of character which has marked half the inhabitants of Europe with little more dignity than brute creatures.

Cumberland river rises among the mountains, considerably to the north-east, and, after its several branches have joined it, runs a long way south, and enters the limits of North Carolina*. After a course of half a degree within those limits, it turns to the north-west, and empties itself into the Ohio, at some distance above its junction with the

* Cumberland river is navigable in large vessels to Nashville, and thence in boats to the mouth of Obas river.—EDIT.

Mississippi. The Tenasee runs into the Ohio, not a long way below the mouth of Cumberland. The Tenasee is the most important of the southern branches of the Ohio *. Its northern fork, called Holston, rises in the country of the same name (which I have before mentioned), and, after passing through Nolachucky, is joined by the main or south branch. This branch rises in the remote parts of the state of Georgia, and, after traversing the borders of the Cherokee country, is joined by the Holston branch, when it is called the Tenasee: from thence it runs south-westerly, quite through the limits of North Carolina, and approaches the head waters of the Mobile, which empties itself into the Gulf of Mexico. In its course, it is very rapid thus far: from the material declivity of the high country, which from mountains gradually sinks into a flat, there is a number of falls, but none of them considerable. It now turns again to the northward, and from its lazy motion, it is obvious that there is very little fall of water from this to the Ohio. This turn constitutes what is called the Great Bend of the Tenasee, or Muscle Shoal, from the number of shoals in this part of the river that are covered with these shell-fish. The river is here from two to three and a half miles wide. Its importance will consist in its being the most convenient inlet from the upper parts of Virginia and the Carolinas to the Mississippi, it being navigable for boats of forty tons burden from Holston, the falls excepted, where carrying-

* The Tenasee is 600 yards wide at its mouth, and upon ascending it, to the distance of 260 miles, it widens to between two and three miles, which width it continues for nearly thirty miles, and which comprehends what is called the Great Bend.

Thus far it is navigable without any obstruction, and, some trifling falls excepted, it may be navigated at least 600 miles farther.

The Tenasee river is navigable by vessels of great burden to the Muscle Shoals; those shoals are only to be passed in small boats or batteaux: from the Muscle Shoals the river is navigable in boats of 40 or 50 tons burden, to the Virginia line.—EDIT.

places will answer until there are canals made, which can be done with very little expence*.

Holston is a narrow strip of country, surrounded on every side by mountains; but there is a hollow which winds through them, so as to admit of a passage this way, and down the river, without any difficulty of bad roads whatever. Should you continue your route by land in the road to Kentucky (which I shall describe in another place), you would have several mountains to pass, and at least two hundred miles of bad road.

* There are five navigable rivers in this territory, which discharge themselves immediately into the Mississippi; viz. Wolf, Hatchee, Forked-deer, Obion, and Reel-foot. Wolf river, seven miles from the mouth, is about 50 yards wide; Hatchee, 80 yards; Forked-deer, 60 yards; Obion, 70 yards; and Reel-foot, 30 yards. These rivers in general are deep, and flow with a gentle current, unincumbered with rocks or rapids, until they reach the barren or broken tract in which they rise. Each of those rivers is bordered by a small strip of low ground, 60 or 80 yards wide, and this again is terminated by a gentle slope or secondary bank. In order to understand the use, perhaps the cause, of this remarkable circumstance, an inner and an outer bank to each of those rivers, it should be remembered that the river Mississippi, during the month of May, rises perpendicularly nearly 25 feet, at which season the low ground on both sides of that river is covered with water, to the depth of 12 or 18 inches. This inundation, on the west side of the river, extends to a great distance, for the country seems to be lower in that direction, and some of the waters of that river find their way to the ocean by other channels. On the east side of the river, the inundation hardly extends above five miles; at that distance the waters are restrained by a secondary bank, which runs parallel to the general course of the river. This outer bank is properly the beginning of high and dry land. It is obvious, that during those spring floods, the rivers, which run into the Mississippi, must suffer a considerable interruption. Their current is affected 10, 15, or 20 miles from the mouth, and they overflow their banks. On those occasions, the secondary bank of those small rivers becomes necessary, for it prevents the adjacent land from being overflowed, except the narrow border above described. The industry of a small french colony at New Orleans has given a sufficient proof that the inundations of the Mississippi may be restrained by artificial banks, by which means arable land has been and may be secured, that is hardly equalled in value by any known lands, except in Egypt.—EDIT.

After

After you leave the plains which extend into the Cumberland country, in your course to the Tennessee, the surface is somewhat broken, but the soil is mostly rich. Great part of the land lying between these rivers and the Ohio, and between Cumberland and Green rivers, was in military grants, made by Virginia to their officers and soldiers, and is esteemed a situation valuable for its proximity to the junction of the Ohio and Mississippi. Their grants extend as low on the Mississippi as the partition line between Virginia and North Carolina, all of which is a beautiful country; and the banks of the river, which are very high, prevent it from overflowing; which is not the case a great way lower down*.

The

* The land on the waters of Tennessee and Cumberland rivers is generally well timbered. In some places there are glades of rich land without timber; but these are not frequent nor large. The general growth is poplar, hickory, black-walnut, buck-eye, or the horse-chestnut, sycamore, locust, and the sugar-maple. The undergrowth, in many places, is cane 15 or 20 feet high, so close together, as to exclude all other plants; where the cane does not abound, we find red-bud, wild-plum, spice-wood, red and white mulberry, genfang, Virginia and Seneca snake-root, angelica, sweet anise, ginger, and wild-hops. The glades are covered with clover, wild-rye, buffalo-grass, and pea-vine. On the hills, at the heads of rivers, we find stately red-cedars; many of these trees are four feet in diameter, and forty feet clear of limbs. In those hills there is abundance of iron-ore, lead-ore, and coals. Copperas and alum fit for use have been gathered in caves near Nashville.

On the rivers that run into the Mississippi, the growth is nearly the same as on the waters of Cumberland river.

In speaking of a new country, that is extremely fertile and well covered with herbage, it can hardly be necessary to say that it abounds in wild game. The buffalo, elk, deer, and bear, are numerous; nor is there any scarcity of wolves, panthers, wild-cats, foxes, beavers, and otters. They have pheasants, partridges or quails, and turkeys in abundance through the year. During the winter, their waters are covered with the swan, wild-goose, brant, and duck. Cat-fish have been caught in those rivers, that weighed above 100 pounds, and perch that weighed above 20 pounds. Nature seems to measure her works on a different scale on the opposite sides of the Appalachian mountains.

In

The land in the Great Bend of the Tenasee is very fine ; but when you approach the country of the Chickasaws, it becomes broken, light, and sandy : and, as you extend to the southward, I have been informed (I never travelled farther than this by land) the soil grows still lighter, and, except a large body of good land on the Mississippi and the bottoms of the several streams that run into the Gulf and the Mississippi, it is little better than West Florida, which has been celebrated in Europe for its fertility ; but so fine a country have I been endeavouring to describe to you, that, judging by comparison, the people in Kentucky and Cumberland look upon that as an indifferent soil.

This letter has imperceptibly grown to a considerable length. I was anxious to comprehend within this sketch, all the country denominated the western country on both sides of the Ohio to the Miami, and then the whole of the Kentucky and Cumberland countries, and the country upon the Tenasee, in order that I might proceed up the Ohio on the western side, comprehending the whole of the country between that and the Mississippi, back to the Miami, and continuing northward to the lakes : afterwards to shew the

In the year 1780, a small colony under the direction of James Robertson, crossed the mountain, and settled on Cumberland river, at the place now called Nashville. In the year 1783, the state of North Carolina laid off a tract of land to be reserved for the discharge of military bounties ; this reservation included the infant colony, a small tract having been allotted to each of the settlers. A county was also laid off on those waters, called Davidson, to commemorate a brave and popular officer who fell in the service of his country. The bounty lands were run off by surveyors appointed for that purpose ; and in a few years a considerable number of the original grantees sold their titles to other persons, and the settlement has lately been increasing very fast. There were 7000 people on that river in September 1791, and their number, since that time, is much increased. We frequently hear of emigrants from the parent state two or three hundred at a time crossing the mountain.—EDIT.

probable rise and grandeur of the american empire, before I proceed to an account of the artificial productions, &c. of Kentucky and Cumberland. Farewell.

Believe, my Friend,

I am your's sincerely.

LETTER IV.

MY DEAR FRIEND,

Kentucky.

IN contemplating the vast field of the american empire, what a stupendous subject does it afford for speculation! Government, ethics, and commerce, acting upon principles different in many respects from those of the old world, and entirely in others! A government which, with its spreading branches, seems in its mighty grasp to promise liberty and protection to one hemisphere! A government which, from its simple construction, and the unity and efficiency of its action, is not less remarkable in the political, than its natural history is in the physical world.

In ten years more, perhaps, a settlement will be formed sufficiently populous to become a federal state in the country into which I am now going to advance; the limits of which, from the confluence of the Mississippi and Ohio to Detroit, is between five and six hundred miles; and taking the medium distance between Pittsburg and the mouth of the Ohio, across to the Mississippi from the Ohio is very little less. The inhabitants of this immense district do not, including French, amount to five thousand. The country
in

in this fork (if I may so call it) is various. Great part of it has been described by Charlevoix, Hutchins, and Carver. Charlevoix seems to have gone rapidly from Detroit by water the greatest part of the way to New Orleans; Hutchins to have done nearly the same from Pittsburg, down the Ohio to the Mississippi, and up that river to the Illinois; so up that, and from thence to Detroit. He has given a tolerably good account of the Illinois country. Carver confined his travels and remarks to the lakes, the upper part of the Mississippi, particularly the river St. Pierre, and the north-western branch of that river, and to the customs and manners of the indian nations. These authors have all considerable merit. They have written so agreeably, that their books have been generally read; which has tended to disseminate a knowledge of this country in a savage state. This part of it is little better; but you must view it as a creation bursting from a chaos of heterogeneous matter, and exhibiting the shining tissue with which it abounds.

Immediately in the fork the land is flat, and liable to overflow; but as you advance on either river the banks rise, and the country expanding, displays a luxuriant soil for a long distance above the Wabash on the Ohio side, and quite to the Illinois on the Mississippi side, which is about two hundred and thirty miles above its junction with the Ohio, and twenty above the mouth of Missouri. This country lies nearly in the same parallel of latitude with Kentucky. From the mouth of the Wabash *, the bottoms on the Ohio are extensive and extremely fertile, as is the country from thence to Post St. Vincent; but towards the rapids of the Ohio, and beyond the bottoms of this river, the country is considerably broken, and the soil in some places light and indifferent. After leaving Post St. Vincent,

* The Wabash is nearly 300 yards wide at its mouth, and except some inconsiderable rapids, it is navigable upwards of 400 miles.

in the route to the Illinois county, you soon fall into those extensive plains which have been described in such glowing colours by Hutchins. This is certainly a beautiful country; and the immense number of deer, elk, and buffalo, which are seen grazing in those natural meadows, renders even wildness enchanting. The air in this climate is pure, and the almost continual unclouded sky tends not a little to charm the senses, and to render even wildness delightful. The country between Post St. Vincent and Kaskaskies is flat and plain, with little variation. As you ascend the Illinois river * the soil grows more fertile, and on either side you find immense forests.

I must now beg you will travel with Hutchins from hence to Detroit †. He will conduct you up the head branches of this river, and, after a short passage, you will embark again on the waters of Lake Michigan, discovering how the operations of this great country will be facilitated by the peculiar courses of its immense and numerous rivers. His observations I have been told are considerably accurate, and, as I have not had the advantage of travelling this route, I recommend you to read his book, which was originally published in England, and no doubt is still to be had.

Detroit lies, between lat. 42° and 43° , upon the straits which communicate between Lake St. Clair and Lake Erie, considerably to the westward of Pittsburg. The country lying between them is not remarkable for any thing but being a wilderness. The soil and climate are such as would entitle it to the reputation of a fine country in any part of Europe, except in winter, when the frost is extremely severe, but less intense than that of Canada. Quebec lies

* The Illinois is a fine gentle river, and navigable to its source for batteaux. Its width is various—in many places it is nearly half a mile: but its general breadth may be considered about 250 yards.

† The Illinois river furnishes a communication with Lake Michigan by the Chicago river, and by two portages between the latter and the Illinois river; the longest of which is only four miles.—HUTCHINS.

nearly in the same latitude as Paris, and from the description which the emperor Julian has given of the winters he quartered there, during his command in Gaul, there seems to be little difference between the winters of France at that period, in respect to cold, and the present winters of Canada. Perhaps the extent of continent lying to the northwest, and the immense lakes of fresh water which cover it, will not admit of the climate of that part of America being so rapidly meliorated as the climate of Europe has been by cultivation. However, it is certain, that as the country has been more opened in America, and thereby the rays of the sun have acted more powerfully upon the earth, these benefits have tended greatly already to soften the winter season : so that peopling Canada (for which we are much obliged to you) is a double advantage to us. First, it is settling and populating a country, that must, sooner or later, from the natural order of things, become part of our empire, and immediately meliorating the climate of the northern states. But, to return to Detroit. Our course from thence to the head waters of the Miami is south-westerly. The country for some distance is flat, and the soil heavy and damp ; but, upon the waters of those rivers, it is beautiful, and abounds in the gifts of nature.

The communication between Lake Erie and the Ohio by water this way, will be up the southern branches of the lake ; and by short passages you arrive upon the waters of the great Miami, Scioto, and Muskingum, which are navigable when flooded *. It must be observed that the rivers I have been

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* Great Miami is about 300 yards wide at its mouth, is a rapid stream, but without cataracts, with several large branches navigable for batteaux a long way up : the principal of which interlocks with a branch of the Miami river, which runs into Lake Erie, to which there is a portage ; and a third has a portage to Sandusky.

Scioto is about 200 yards wide at its mouth, its current gentle, and is navigable for nearly two hundred miles to a portage of only five or six miles to Sandusky.

Muskingum is a fine gentle river, confined by high banks, which

pre-

mentioning are not navigable, throughout the year, for boats of above ten or fifteen tons. Great part of the country between this and the Wabash is champaign; but in travelling towards the Rapids of the Ohio you pass considerable plains, and then fall into a broken and hilly tract of poor land, that continues with little variation until you approach the Rapids, when all the variety and charms, which this river produces, present themselves again. From Detroit to the Rapids is nearly four hundred miles.

I have gone cursorily over the western country which is peopled, and about to be peopled; but have purposely avoided taking any notice of those parts which are so little known, and of which I could say nothing but from the information of hunters and savages, which has been industriously collected and published by Carver, Jefferson, and others. Besides, as it is your wish only to be informed of the advantages of settlement, it would have been idle to have troubled you with accounts of countries that will not be settled, or at least formed into states, in our time.

The rapid population of the western country has not only astonished America itself, but it must amaze Europe, when they enter into the views and increase of this growing empire. The first settlement on the western waters by the English was in 1760, and, under the influence of almost continual indian wars, that settlement (I am now speaking of the upper settlement on the Ohio) now contains not less than an hundred thousand souls. The state of Kentucky

prevent its floods from overflowing the surrounding country. It is 250 yards wide at its confluence with the Ohio, and navigable, without any obstructions, by large batteaux to a little lake at its head; from thence to Cayahoga, a creek that empties into Lake Erie, is not above two miles; and which must become the best portage between that lake and the Ohio.

Cayahoga at its mouth is wide and deep enough to receive large sloops from the lake.

Sanducky is a considerable river that empties into Lake Erie; its stream is gentle, and large enough at its mouth to receive sloops.

did

did not make a permanent settlement before 1780, which now contains not less than an hundred thousand. The Cumberland settlement began about this time, but it was at least three years afterwards before there was security given to that settlement, and there are settled about fifty thousand souls more *. Besides the settlement in the Great Bend of the Tenaſsee, which will join them in their separation from North Carolina, the settlement of Nolachucky and Frenchbroad, made on the branches of the Tenaſsee in the years 1782, 1783, 1784, and 1785, contain between thirty and forty thousand souls; several other settlements are forming at the Iron Banks on the Miſſiſſippi, beſides thoſe upon the weſtern ſide of the Ohio, which, including the inhabitants

* The farmers on Cumberland river, for the ſake of deſcribing their lands, diſtinguiſh them by firſt, ſecond, and third quality. Land of the firſt quality will bear indian corn or hemp; but it will not bear wheat without great reduction. Land of the ſecond quality does not bear wheat to advantage until it has been reduced by two or three crops of corn, hemp, tobacco, or cotton. Land of the third quality bears every kind of grain, that is uſually ſown on dry ground, in the Atlantic ſtates. It is agreed by all who have viſited the Cumberland ſettlement, that 100 buſhels of indian corn are frequently gathered from an acre of their beſt land. Sixty or ſeventy buſhels from an acre is very common; but the farmer who expects to gather ſuch a crop muſt be careful, while the corn is ſoft, to guard it againſt bears and racoons. This, however, is a trouble that muſt ceaſe when the country is well ſettled. Wheat, barley, oats, rye, buckwheat, indian corn, peaſe, beans, potatoes of both ſorts, flax, hemp, tobacco, indigo, rice, and cotton, have already been planted in that ſettlement, and they all thrive in great perfection. The uſual crop of cotton is 800 pounds to the acre; the ſtaple is long and fine. It is alleged, however, that the lands on the ſmall rivers that run into the Miſſiſſippi, have a decided preference to thoſe on the Cumberland river, for the production of cotton and indigo. No experiments have been made on land near the Miſſiſſippi, within the ceded territory; but there is a ſmall ſettlement further down the river, within the limits of the United States, on a ſimilar ſoil, where the growth and quality of cotton is ſo remarkable, that its culture is more profitable than any other crop. The ſoil on thoſe rivers is deep and light, having a ſmall mixture of ſand with a black earth; hence, as the planters allege, it proves favourable to the culture of all kinds of roots, as well as of indigo and cotton.—EDIT.

at Post St. Vincent and the Kaskaskies (I judge from the best information) do not fall short of fifty thousand. I have not mentioned the number in the settlement of the Great Bend of the Tenaſſee, as I have not been able to collect any ſatisfactory information reſpecting them: but I ſuppoſe the aggregate number of ſouls in the weſtern country is very little, if at all, ſhort of four hundred thouſand, including the ſettlements of Holſton, Clinch River, and Powel's Valley, which taken together may amount to ſeventy thouſand ſouls, and which are properly on the weſtern waters.

The ſettlements on the weſtern ſide of the Ohio have been greatly haraſſed and retarded by the indian war, which has continued with little variation ſince 1785; but the vigorous meaſures which their depredations have obliged Congreſs to adopt, muſt end with a permanent peace, or in a few years their provocations will lead to the extirpation of the whole of the Miami and Illinois tribes. Their proweſs and determined reſolution will, no doubt, conſiderably annoy our army, which, having been moſtly recruited from the Atlantic country, are not acquainted with ſuch dexterity and courage, or indeed habituated to their manner of fighting; but our numbers have grown too conſiderable; for defeats only invigorate our meaſures, while the loſs of every man, to nations whoſe population is ſo extremely tardy as that of the ſavages of America, is a lamentable conſideration.

In the peopling this country, new ſtates will naturally ariſe; and thus, in contemplating the continent of America, we may form an adequate idea of what will be the magnitude of its federal empire. The upper ſettlement on the Ohio, though more populous than the ſettlement of Cumberland, is not likely to become a ſeparate ſtate ſo ſoon. The greateſt part of it is within the limits of Pennſylvania, and not ſo remote from the capital of that ſtate as the

Cumberland settlement is from the capital of North Carolina. The intercourse is continual, and the productions of the country, or at least their cattle, may be driven to Philadelphia, &c. &c. as I have observed before; and their influence is not sufficient to procure them an act of separation, should they desire it. In the case of North Carolina and Cumberland there is little or no communication between them, nor is it to be expected that it ever can be the interest of either to continue the connexion; therefore, it is most likely, that district will follow Kentucky in the links of the great federal chain.

I must now proceed upon conjecture, as there are no definite limits prescribed by the federal government for the lines of demarkation, which are to be the different boundaries or limits of new states that will arise. However, it is easy, by consulting natural boundaries, to form a pretty just idea where will be their different divisions. I have already remarked that Kentucky and Cumberland are divided by a line in lat. $36\frac{1}{2}^{\circ}$, which will be the boundary of Cumberland to the northward. The mountains will most likely be its eastern limits: its southern limits will be, either the partition line continued between North Carolina and Georgia (South Carolina never possessed any western land), or it will run southerly, until it strikes that ridge of hills which divides the Tenaſsee country from the country of the Chactaws; thence a due west course to the Mississippi, or following some one of those branches which rise in those hills, and pursuing its course to that river. This will comprehend a district of country of nearly two hundred miles in length from east to west, and nearly an hundred and fifty from north to south. I cannot speak here with accuracy, as it is that part of all the western country which is least known.

The country upon the head waters of the Tenaſsee stands next in the list of advancement. This country includes the settlement of Holston, the settlement of Clinch, and the settle-

settlements of Powell's Valley, which are part in Virginia, and part in North Carolina; besides the settlements of Nolachucky and Frenchbroad. This last settlement will be extended to the borders of the Cherokee country, which will bind this state to the southward. Its western boundary will be Cumberland Mountain, which will divide it from the states of Kentucky and Cumberland. Its northern limits will be the ridges of hills that divide the waters of the Tenaſsee and the Great Kanhaway; and its eastern boundary will be the high hills that divide the eastern from the western waters in this part of America, which are called in Virginia the North Mountains, and which continue their course through the Carolinas. This state will be in extent upwards of two hundred miles from north to south, and the average width from east to west nearly an hundred and fifty.

This country has mountains on every side but the south-west, and is interspersed with high hills in most parts of it. The vallies are extremely fertile, and everywhere finely watered. The climate in the upper part of the country is not so temperate as that of Kentucky, though it lies in the same latitude, which is owing to the neighbouring mountains. Many parts of this district are well settled, and cultivation was brought to such considerable perfection, that the inhabitants had it in contemplation to become independent seven years since, under the distinction of the State of Franklin, of which very probably you may have read. Its population is not only considerable, but its respectability in every consideration will very soon entitle it to the rank of a distinct state; though it may require some time to effect a unity of sentiments, and a consolidation of its various and detached settlements into that order which the organs of government require.

Before I leave this side of the Mississippi, I must beg leave to digress, and shew what will be the probable destination

of the indian nations, who live between the southern limits of the country I have been mentioning, and the Floridas, and which may amount to thirteen thousand, inclusive of men, women, and children.

The Cherokees are about two thousand five hundred ; the Creeks three thousand five hundred ; the Chacktaws are about six thousand ; and the different vagrant nations may amount to a thousand more.

The settlements making in the upper parts of Georgia, upon the fine lands of the Oconee and Okemulgee rivers, will in a very few years bid defiance to them in that quarter. The georgian troops have already defeated them, and forced them to be quiet. The settlement of Frenchbroad, aided by Holston, has nothing to fear from them ; and the Cumberland is too puissant to apprehend any danger. The Spaniards are in possession of the Floridas (how long they will remain so must depend upon their moderation and good manners), and the settlements at the Natchez and above, which will soon extend to the southern boundaries of Cumberland ; so that they will be completely enveloped in a few years. Our people will continue to encroach upon them on three sides, and compel them to live more domestic lives, and assimilate them to our mode of living, or cross to the western side of the Mississippi.

In the settlement of Long Island, in the state of New York, some of the tribes of Indians remained, and lived in continual intercourse with the whites. Whether it was from any cruelty practised upon them, or from their predominant passion for ardent spirits, I will not pretend to say ; but it is certain that very few of them remain, and they are a slothful, degenerate order of beings, compared with the aborigines of that country. In the settlement of South Carolina the Catawbias were allotted a tract of country, and though they have retained their courage, their numbers have greatly declined. The cause of civilization proving repugnant to
their

their population, I think, may be sufficiently accounted for in the whites encouraging their thirst for intoxication.

I will next take notice of the Genesee country, which lies upon the waters that run into Lake Ontario, and which it is expected will be peopled as soon as the Six Nations of Indians are peaceable. This is a very rich and fertile tract of country, lying in the remote parts of New York, bounded by Pennsylvania to the south-east, by the lakes to the north-west, and high hills and a wilderness from the Ohio country. I have hitherto omitted taking notice of it, as not properly belonging to the western country; but as I am going to proceed to partition the country west of the Ohio into separate states, I thought it most consistent to keep up the chain of connexion; and without mentioning this district, there would have been a chasm between New York and the uppermost state upon the waters of the Ohio.

Let us now return to the Ohio. That ridge of hills which divides the waters of this river from that of the lakes running south-westerly, until they run north-westerly, and divide the sources of the Wabash and Illinois rivers from the southern branches of the lakes, will most likely mark the limits to the west of the upper state upon the western side of the Ohio. The ridge of hills, which divides the waters of the Allegany river from those of the Genesee, will bound it to the north; the Allegany river and the Ohio to the east; and the Muskingum to the south. The next state I should form between the Muskingum and Scioto, the Ohio, and that ridge of hills * between the sources of these

* There are no mountains or ridges of hills that separate the waters of the Ohio from those of the St. Lawrence. The country which forms the dividing ground between the waters of the Mississippi and the lakes, though necessarily much elevated above the coasts of the lakes, or the shores of the Ohio or Mississippi rivers, does nevertheless assume a level form, which spreads into extensive prairies, or plains of natural meadow, interspersed with swamps and morasses, whence issue the north-west sources of the Ohio, and the south-east branches of the lakes.—EDIT.

rivers and those of Lake Erie ; the third between the Scioto, the Great Miami, the Ohio, and the same ridge of hills. The country lying between the Miami, Wabash, the Ohio, and the same hills, I would put into another state ; and the country lying between the Wabash, Ohio, Mississippi, and Illinois rivers, I would establish into a fifth state.

Between the mouth of the Illinois river and waters of Lake Michigan, lies a district of country equally fertile with any part of the western country ; but, in the progression of our settlements, it will be some years before any settlements can be formed there, except in the fork of the Mississippi and Illinois ; which may be erected into a state, by running a line from a point lat. $42^{\circ} 30'$ upon the Mississippi, in such a direction as to strike the head branches of the Illinois. But it is most likely that the country on the Mississippi and Missouri will be settled before this district, though it is considered as the empire of Spain. However, I will not be so indecorous as to parcel out the territories of other nations : it is sufficiently presumptuous to have gone so far as I have.

I have now marked out the imaginary boundaries of six new states, exclusive of those on the eastern side of the Ohio, the Genesee settlement, and without including the country between the northern limits of Kentucky and Pittsburg, or the country between Niagara, Detroit, and the sources of those rivers which run into the Ohio.

The upper settlement on the eastern side of the Ohio will most likely follow the Cumberland and Holston in its independence. In peopling the new states I conclude the lowermost will be first settled, and consequently the first to be admitted into the federal government. The district of country that will be last settled, in all probability, between the Ohio, the lakes, and the Mississippi, to the south of St. Anthony's falls, is perhaps that which lies between Niagara and Detroit, and extending to the ridge of hills which divides the waters of Lake Erie and Ohio, by reason of its damp

damp and cold soil. The surrender of the forts of Niagara and Detroit (which I understand is about to be done), may increase the settlements upon the borders of Lake Erie; but I think it is not likely that inhospitable clime will find inhabitants, while the genial regions of the Mississippi are in a great measure uninhabited.

It is next necessary to take notice how, and in what probable time, these states will be inhabited. The first settlement upon the Ohio, and the progress made in agriculture, were extremely tardy. But it is necessary to recollect, that America was not only in an infant state at the conclusion of the war in 1763, but that the continual wars with the Indians greatly retarded the progress of that settlement; and if the same obstructions have been given to the settlements on the western side of the Ohio, it is equally certain that the exhausted condition of the finances of the United States, until within a year and a half past, did not permit them to take those vigorous measures necessary to their tranquillity; and that permanent settlements on that side of the river, and the increase of the necessaries of life (which are now in greater abundance in the western country than in any other part of America), will enable them to support their situation with infinitely more ease, than when we were obliged to bring almost every thing for use over the mountain.

I have estimated the number of souls on the western waters at 400,000. I should suppose, from the disposition to early marriages, which is general, and the extraordinary fecundity it is observed everywhere prevails, with the addition of the emigrants who may be expected from the eastern states, that the inhabitants will double once in 15 years for the next 60 years to come, at least,—which in the first 15 years will be equal to peopling four or five of these states; and I think we may expect to see at the end of 30 years the whole country I have been describing inhabited.

The ratio of increase after the first 30 years appears almost too astonishing for belief: 6,400,000 souls increase in the course of 60 years, when it is notorious that all America added to her population little more than 2,000,000 in the course of a century, no doubt will appear a calculation too extravagant; for which reason it will be necessary for me to state the rise of the one, and the probable growth of the other.

Mr. Jefferson, in his notes on Virginia (to which I shall have frequent occasion to advert in my subsequent letters), allows a duplication only once in $27\frac{1}{4}$ years. He takes the space of 118 years inclusive from 1654, until the year 1702, when the tithes of Virginia had increased from 7209, to 153,000; which estimate, he says, is corroborated by the particular uniformity of the intermediate enumerations taken in 1700, 1748, and 1759. According to this increase, he supposes the inhabitants of Virginia alone will amount to between 6 and 7,000,000 within ninety-six years.

It appears, by a statement which he has made of the emigrants in different years to that country, that the greatest number in any one year was 3000, which was the year 1628. From the year 1654 the dissolution of the Virginia company took place, and importations almost ceased until it became the practice of your government to transport convicts to the colonies; so that it does not appear that the peopling of Virginia was materially owing to the migrations from Europe: whereas I have known upwards of 10,000 emigrants to arrive in the single state of Kentucky within one year, and from 4 to 10,000 in several other years.

Great part of the country from the Bay of Fundy to Cape Florida upon the sea coast is unfavourable to agriculture. New England has never yet produced corn sufficient to supply its inhabitants with bread; which must proceed either from the ignorance of the arts of husbandry in that country, or from the poverty of the soil: I believe both have

have helped to retard the progress of agriculture. Long Island is chiefly a sand heap, where the inhabitants seem for a great length of time to have been content to live upon fish. The state of New York for a considerable distance back is a continuation of hills and stones. The country from Polou-shook to the capes of the Delaware is a flat of nothing but salt marshes and pine barrens, which extend for twenty miles up the country; and the whole country from those capes southward to the Gulf of Florida is no better, for a considerable distance from the sea, the bottoms of the rivers excepted; so that the first settlers of America had not only the natives to contend against, but also extreme poverty.

The extension of the dutch settlement from New York up Hudson's river to the fine lands about Albany, and to the fertile banks of the Rariton, in Jersey, and the settlement of Pennsylvania by the celebrated Penn, first produced that plenty which is not only necessary to comfort, but is essential to occasion that fecundity which distinguishes the rapid population of most infant countries, after they have overcome the first difficulties of establishing a settlement.

As the natives were driven back, the settlers began to penetrate into the fertile regions of the middle parts of the states, which lie at some distance from the sea coast. But several causes now combined to retard the population of the country. The unfavourable appearance of the soil of New England induced most of its inhabitants to lead sea-faring lives, which not only tend to check the natural increase of men by the losses incidental to such an employment, but hinder, in a material degree, the propagation of the species by the separation of the sexes.

This business was in some measure common to the whole colonies. Besides which, the wars that England was often engaged in against France and Spain, and in which we were also concerned, with the frequent indian wars, and the late

american war, helped not a little to obstruct the natural proportion of the increase of inhabitants. America had only crossed the line between poverty and affluence, when the late unfortunate war commenced. However, there was a still more nefarious and detestable cause for this slowness of population. arising from the introduction of african slavery. Men began then to look upon it as infamous to labour—amusements were invented to fill up their time—dissipation followed in all the excess of idleness and folly. The fair sex were neglected ; marriages were less early, and less frequent. And thus it happened that the inhabitants of Virginia were found to double only once in $27\frac{1}{4}$ years, and which has been adopted by some persons as a criterion to estimate the increase of the inhabitants of all the other states ; but it is not a fair criterion, for it is notorious, that Pennsylvania is much better peopled than Virginia, though its first settlement was at a later date. But, now, for the reverse. Though we enjoy an extensive inland navigation, we are not liable to the same loss of men which the perils of the sea produce ; nor any of that loss which maritime countries suffer by their citizens entering into foreign service, or settling, in foreign countries : our voyages will be regulated by the periodical floods, and the æras of absence will be more determinate and certain ; so that absence here cannot so materially interrupt domestic happiness, and cannot in the least retard the increase of inhabitants. It is impossible that we can experience any thing like poverty, for no country, perhaps, upon the globe is so rich in the comforts and necessities of life. As to wars, we can have none after a few years more are past. The Spaniards may put us to some inconvenience for a few years to come ; but, in doing this, they will not only risk the loss of New Orleans, but the whole of Louisiana, which they consider as the key to Mexico. Thus secured from wars, and the inland navigation of the country not subjecting us to material losses in that business ;

business; with the propensity to early marriages, produced by the simplicity and innocence of youth, tutored under the pure maxims of virtue and reason; it cannot be considered as a sanguine calculation, when we add the additional consideration of the probable number of emigrants we may receive, that our population will double once in fifteen years.

Having endeavoured to give you an idea of the country north-west of the Ohio, omitted in my last, and what will be the probable partitions of the new states to be laid off on that side of the river, the population, and expected increase of the inhabitants of the western country; I shall take leave of you for the present, and in my next you shall have an account of its productions, navigations, &c.

I remain, affectionately,

Yours, &c.

LETTER V.

MY DEAR FRIEND,

Kentucky.

IN the advancement of civilization, agriculture seems to have been in every country the primary object of mankind—Arts and sciences have followed, and, ultimately, they have been relevant to each other. Fortunately for us, the present æra of reason not only admits, but makes it necessary, that they should go hand in hand. The decency of life is not the smallest of sublunary blandishments. Purity is to the body what virtue is to the soul;—an eternal invigorating germ, whose blossoms diffuse the most fragrant odours, and give a vivacity to the mind equally manly and delightful.

The

The western limits of the federal empire are bounded on the north by the Lakes Ontario, Erie, St. Clair, Huron, Superior, and the Lake of the Wood *; to the west by the Mississippi; and extending as far south as the Natchez, or lat. 32 deg. then is bound by the Floridas to the south. What is called the Western Territory lies on this side of the Allegany mountain, within these limits †.

Here is found all the variety of soil and climate necessary to the culture of every kind of grain, fibrous plants, cotton, fruits, vegetables, and all sorts of provisions. The upper settlements on the Ohio produce chiefly wheat, oats, barley, rye, indian corn or maize, hemp and flax. The fruits are apples, pears, cherries, peaches, plums, strawberries, raspberries, currants, gooseberries, and grapes; of culinary plants and vegetables, there are turnips, potatoes, carrots, parsnips, cymbiline or squash, cucumbers, pease, beans, as-

* Lake Ontario is about 600 miles in circumference, Lake Erie nearly 300, Lake St. Clair about 90, Lake Huron is reckoned 1000, and Lake Superior between 15 and 1600.

The Lake of the Wood from east to west is about 70 miles, and its greatest breadth about 40.

Lake Michigan is divided on the north-east from Lake Huron by the Straights of Michillimacknac. Its greatest length is 230 miles, its breadth about 60, and its circumference nearly 600.

On the north-west parts of this lake its waters branch out into two bays; that which lies towards the north is Noquet's Bay, and the other Puans, or Green Bay.

The waters of this, as well as the other great lakes, are clear, wholesome, abound in fish, and are of sufficient depth for the navigation of ships.

It is worth observing, that some of these lakes, in magnitude, are almost equal to the seas of Europe; and though there is not an immediate communication for ships with the Atlantic ocean, yet the advantages they must afford to the operations of commerce will prove not only very considerable, but, I conceive, will be nearly as beneficial as open seas, when the surrounding countries are under that same government, and influenced by reciprocal interest.

† Colonel Gordon, in his journal, says, "that this country may, from a proper knowledge, be affirmed to be the most healthy, the most pleasant, and most fertile spot of earth known to european people."

paragus,

paragus, cabbages, brocoli, celery, and salads; besides which there are melons and herbs of every sort. The provision consists of beef, pork, mutton, veal, and a variety of poultry, such as ducks, Muscovy ducks, turkies, geese, dung-hill fowls, and pigeons. The superfluous provisions are sold to the emigrants, who are continually passing through those settlements, in their route to the different districts of country, and which I have enumerated. Some considerable quantities of spirits distilled from rye, and likewise cider, are sent down the river to a market, in those infant settlements where the inhabitants have not had time to bring orchards to any perfection, or have not a superfluity of grain to distil into spirits. The beef, pork, and flour, are disposed of in the same way. The flax and hemp are packed on horses, and sent across the mountain to the inland towns of Pennsylvania and Maryland, and (as I hinted in a former letter) in a few years, when grazing forms the principal object of those settlers, they will always find a market for their cattle at Philadelphia, Baltimore, and Alexandria.

These settlements might produce a considerable quantity of sugar, but hitherto what they have made has served for little more than home consumption, as every part of the back country from lat. 42° to 36° , and upon the Mississippi, as far north as lat. 45° , produces an abundance of the sugar maple-tree as would be equal to furnish sugar for the inhabitants of the whole earth; and to send it to any of the market towns on the Atlantic is too far to be profitable, until the canals of the Potowmac shall have been finished. That country produces also all the pot-herbs which are common in Europe: several kinds of nuts grow in the forests, such as chesnuts, hickory, and black walnuts. The mountains, hills, and uninhabited parts abound in deer, wild turkies, and a species of grouse, called by the Americans promiscuously partridge or pheasant. There is an abundance of wild fowl, as indeed is the case in every part of the western

western country: to enumerate these could prove for you neither amusement nor instruction.

Linen and woollen cloths, leather, and hats, for home consumption, are manufactured with considerable success. The two first articles are only made in families for their own use; but the latter are made by men of profession in that business, and are of a quality that would not disgrace the mechanics of Europe. Blacksmiths work of all sorts, even to making fire-arms, is done there; as is also cabinet work, wheel-wright, mill-wright, house carpentry, joinery, shoe-making, &c. &c.; in short, all the trades immediately necessary to the promotion of the comforts of new settlements, are to be found here.

After passing to the southward of lat. 40 deg. the climate becomes favourable to the culture of tobacco. It will, no doubt, grow farther to the north; but neither its flavour is so aromatic, nor the crop so certain or productive. Indeed the farther south tobacco grows, generally the finer its quality; hence it is, that the saegars of Cuba are so much admired for their peculiar scent, and the Oroonookoo for its mildness. However, this is of little consequence to any country, as it is certain no cultivation is so pernicious to the soil, and of so little real advantage to the cultivator. It continually impoverishes the land; and every additional season, instead of producing riches to an estate, tends to beggar it: every vestige of its growth is misery and devastation, and no soil, but one as prolific as that of the Nile, would be capable of producing it for any length of time, according to the system which has been pursued in Virginia and Maryland. However, the whole of the Ohio and Mississippi country below lat. 40 deg. is perhaps better adapted to produce tobacco in quantity than any other country upon the face of the globe.

Kentucky produces, besides tobacco, all the different kinds of grain that I have described in the upper settlement;

ment; all the fruits, with the addition of apricots and nectarines*; these and peaches grow here to very great perfection, particularly when planted upon a light soil, which should always be the case when it can be found: but, however extraordinary it may appear, it is not often the case in this district of country.

Those culinary plants, vegetables, &c. I have enumerated above, are produced in the whole western country. In some parts they grow to greater perfection than in others, as in this the cucumber, turnips, peas, and many others, are much finer than I ever saw them any where beside. The cantelupe melon is only to be equalled by those in Persia. We are not at the trouble and expence of forcing. Every thing put into the ground of the vegetable kind grows in a most wonderful manner.

The soil is uncommonly favourable to hemp and indian corn. I have known 12 cwt. of the former produced from an acre of ground, and as much as 100 bushels of the latter. This has not only been done from an uncommon fertile spot, but there are large bodies of land adjoining, which are equally prolific†. I believe that, were I to mention upon an average the produce of the whole country, it would be found to be nearly as follows:

Hemp per acre	-	-	800 cwt.
Indian corn, or maze, ditto	-	-	60 bushels
Wheat, ditto	-	-	30 ditto
Barley, ditto	-	-	40 ditto
Oats, ditto	-	-	50 ditto
Clover and timothy grass, ditto	-	-	25 cwt.

* I never saw an apricot or nectarine in any part of the western country. They are a fruit very rarely met with in the Atlantic states.—EDIT.

† From several accounts, and from the specimens of the indian wild hemp, as well as from the judgment which some of our rope-makers of the first class here in England have given on it, it seems pretty clear, that something more might be done in America by the cultivation of the native, than by the transplanting of a foreign species.—EDIT.

Besides

Besides hemp and flax for manufacturing, cotton is cultivated with considerable success, particularly in the southern parts of the state, and Cumberland; and, no doubt, in a few years, when our settlements extend to the Natchez, cotton will be produced in as great perfection as in the East or West Indies. No soil or climate can be more congenial to this plant than the regions on the lowermost parts of the Mississippi. We have it in our power to promote the culture of silk also. The mildness of the climate, and the great quantity of the mulberry trees, which are everywhere interspersed in our forests, render this matter extremely easy; but how far this will be politic, when the use of silk is going out of fashion, is a matter that requires some consideration*. Cotton has supplied its place, and its superior ex-

* That sensible and judicious observer, Mr. Pratt, recommended it to his countrymen, that, instead of attempting to breed the silkworm of Asia, they should make trials on various species of spinning-worms, with which the woods of America abound. From repeated experiments, he thought himself authorised to assert, that he was sure a native silkworm would some day or other be found in America, such as might turn to practical account; whereas the thunder, the boisterous and sudden changes of weather, under the present state of the climate of America, disturbed the foreign silkworm, so as that it would never be cultivated to any advantage equal to what the native silkworm might be. At the time that these things were in New England a subject of speculation, they were, by the experiments made by madam Hubert, a Provençal settled in Louisiana, reduced to demonstration. This lady made many comparative experiments on the native and foreign silkworm, fed on different leaves of different mulberry trees; the native worm of America, though larger and stronger, yet being wild, and not settled like the domiciliated worm of Europe, did not produce an equal quantity of silk; but this she imputed wholly to its wild unsettled nature; their silk, although coarse, was strong and thick. Since making the above remark, governor Pownall was informed that 10,000 weight of cocoons of the *native* silkworm of America, was sold in 1771 at the public filature in Philadelphia, and that the silk produced from them was of a good quality; and a sample being sent to England, was much approved of in London. By the transactions of the american philosophical society held at Philadelphia, printed in 1768, it appears, that Mr. Moses Bertram had made many curious experiments on the native silkworm. See also M. de Pratz, hist. de Louisiana, liv. ii. chap. 2.—EDIT.

cellence,

cellence, I apprehend, will always make it a more profitable manufactory.

The growth of wool will form an important consideration with us. The plains I have described extend quite to the mountains, so that sheep here may have every advantage which the flocks of Spain enjoy. If we can form any idea from the samples of wool produced in many parts of the country, we may conclude that our most sanguine expectations will be fully answered.

The buffalo are mostly driven out of Kentucky. Some are still found upon the head waters of Licking creek, Great Sandy, and the head waters of Green river. Deer abound in the extensive forests; but the elk confines itself mostly to the hilly and uninhabited places.

The rapidity of the settlement has driven the wild turkey quite out of the middle countries; but they are found in large flocks in all our extensive woods.

Amidst the mountains and broken countries are great numbers of the grouse I have described; and since the settlement has been established, the quail, by following the trail of grain which is necessarily scattered through the wilderness, has migrated from the old settlements on the other side the mountain, and has become a constant resident with us. This bird was unknown here on the first peopling of the country.

There is a variety of wild fowl in every part of this state, particularly teal, and the summer duck. The latter breeds with us. Its incubation is always in temperate climates, which is the reason of its being called the summer duck.

The productions of Cumberland are nearly the same as those of Kentucky. The quality of tobacco is perhaps something better; but the climate being considerably warmer, is not so favourable to wheat and barley, nor does grass grow there so luxuriantly as with us.

The country below Cumberland soon becomes warm
F enough

enough for indigo and rice ; and perhaps these articles, in a few years, will be cultivated on the Mississippi with as much success, if not more, than they ever were in South Carolina, or Georgia ; particularly the former, as the soil on the Mississippi is infinitely more luxuriant than any in the Carolinas. Some essays were made in this business previous to the late war ; but the object was abandoned in the destruction of the settlement I mentioned in a former letter, made below the Natchez.

Oranges, and other tropical fruits, grow at the Natchez, and some distance above, to considerable perfection. There are a variety of nuts that grow both in Kentucky and Cumberland, some of which are common to both : the most remarkable of them is the pacane ; all of which have been noticed both by Carver and Jefferson. Grapes, plums, gooseberries, and strawberries, grow also spontaneously in the southern parts of Kentucky, and in most parts of Cumberland.

The produce of the western country will be nearly the same in the same parallels of latitude throughout ; so that, comparing my imaginary states with the settled country south-east of the Ohio, you will be able to form a just idea of what they will be capable of producing. But to comprehend the object of the commerce of this country, it is first necessary to contemplate it, abounding in all the comforts of life, limited in its variety of climate only by what is not desirable ; with a soil so prolific, a navigation so extensive, and a security so permanent, from being inland, that it seems this vast extent of empire is only to be equalled for its sublimity by the object of its aggrandizement.

Provisions, tobacco, and raw materials, will constitute the first articles of our trade *. Such a quantity of beef, pork, bacon,

* The following just and judicious observations were addressed to the earl of Hillsborough, in the year 1770, when secretary of state for the north american department :

bacon, butter, cheese, &c. &c. might be furnished from this country as will one day, no doubt, furnish the West India islands,

“ No part of North America will require less encouragement for the production of naval stores, and raw materials for manufactories in Europe, and for supplying the West India islands with *lumber, provisions, &c.* than the country of the Ohio ; and for the following reasons :

“ First, The lands are excellent, the climate temperate; the native grapes, silkworms, and mulberry trees, abound everywhere; hemp, hops, and rye, grow spontaneously in the vallies and low lands ; lead and iron are plenty in the hills; salt springs are innumerable ; and no soil is better adapted to the culture of tobacco, flax, and cotton, than that of the Ohio.

“ Second, The country is well watered by several navigable rivers, communicating with each other ; by which, and a short land carriage, the produce of the lands of the Ohio can, even now (in the year 1772), be sent cheaper to the sea-port town of Alexandria, on the Potowmac river in Virginia (where the troops of general Braddock landed), than any kind of merchandise is sent from Northampton to London.

“ Third, The river Ohio is, at all seasons of the year, navigable with large boats, like the west-country barges, rowed only by four or five men ; and from the month of February to April large ships may be built on the Ohio, and sent to sea, laden with hemp, iron, flax, silk, tobacco, cotton, pot-ash, &c.

“ Fourth, Flour, corn, beef, ship-plank, and other useful articles, can be sent down the stream of the Ohio to West Florida, and from thence to the West India islands, much cheaper and in better order, than from New York or Philadelphia, to those islands.

“ Fifth, Hemp, tobacco, iron, and such bulky articles, may also be sent down the stream of the Ohio to the sea, at least 50 per cent. cheaper than these articles were ever carried by land carriage, of only 60 miles, in Pennsylvania ; where waggonage is cheaper than in any other part of North America.

“ Sixth, The expence of transporting european manufactories from the sea to the Ohio, will not be so much as is now paid, and must ever be paid, to a great part of the countries of Pennsylvania, Virginia, and Maryland. Whenever the farmers or merchants of the Ohio shall properly understand the business of transportation, they will build schooners, sloops, &c. on the Ohio, suitable for the West India or european markets ; or by having black walnut, cherry tree, oak, &c. properly sawed for foreign markets, and formed into rafts in the manner that is now done by the settlers near the upper parts of the Delaware in Pennsylvania, and thereon stow their hemp, iron, tobacco, &c. and proceed with them to New Orleans.

islands, and afford relief to the miserable Chinese, whose scanty portion of rice is only sufficient to keep soul and body together. Our mountainous countries must always prove excellent ranges for herds of cattle; the grass, in the summer, affording sufficient food to fatten them, without the expence of cultivated meadows, and the winters are seldom so severe as to require any other food than the cane and pea-vine.

The navigation of this country has been much talked of. The distance from one place to another has been computed with some degree of accuracy, and the various experiments which have been made confirm the opinion that its difficulty is merely imaginary.

The common mode of descending the stream is in flat-bottomed boats, which may be built from 15 to 500 tons

“It may not, perhaps, be amiss to observe, that large quantities of flour are made in the distant (western) countries of Pennsylvania, and sent by an expensive land carriage to the city of Philadelphia, and from thence shipped to South Carolina, and to East and West Florida, there being little or no wheat raised in those provinces.

“The river Ohio seems kindly designed by nature, as the channel through which the two Floridas may be supplied with flour; not only for their common consumption, but also for the carrying on an extensive commerce with Jamaica, and the Spanish settlements in the bay of Mexico. Millstones in abundance are to be obtained in the hills near the Ohio; and the country is everywhere well watered with large and constant springs and streams for grist and other mills.

“The passage from Philadelphia to Pennsacola is seldom made in less than a month, and sixty shillings per ton, freight (consisting of sixteen barrels), is usually paid for flour, &c. thither. Boats carrying 800 or 1000 barrels of flour may go in about the same time from Pittsburg as from Philadelphia to Pennsacola, and for half the above freight; the Ohio merchants would be able to deliver flour, &c. there in much better order than from Philadelphia, and without incurring the damage and delay of the sea, and charges of insurance, &c. as from thence to Pennsacola.

“This is not mere speculation; for it is a fact, that about the year 1746, there was a great scarcity of provisions at New Orleans; and the French settlements at the Illinois, small as they then were, sent thither in one winter upwards of eight hundred thousand weight of flour.”

burden.

burden. But, as far as I have been able to judge, I should suppose, that about 50 or 60 tons burden would be the most convenient, wieldy, and consequently safe, particularly when the waters are very high; for in such cases the rapidity of the current makes it difficult to manage an unwieldy mass with facility. These boats are built of oak plank, with a certain proportion of breadth to their length, *i. e.* nearly as 12 feet to 40; which will be a boat of nearly 40 tons. They are covered or not, as occasion may require. The object is to build them as cheap as possible, for their unwieldiness prevents the possibility of their returning, and they can only be sold as plank.

Several of these boats setting out together, let us suppose 5, 10, 15, or 20, of 60 tons burden each, which would require each 6 hands to navigate them; ten boats then of 60 tons each will employ 60 hands, which will be equal to navigate up the stream 3 boats of 5 tons each, and would be more than sufficient to bring back the cargo that the produce of the 10 boats would purchase; as the articles we export are gross and bulky, while we want only in return superfine goods: the coarser goods of every sort will always be manufactured in the country. We also make our own salt, sugar, spirits, malt liquor, and shall soon make our own wine. These boats must be worked up with steam and sails.

The invention of carrying a boat against the stream by the influence of steam, is a late improvement in philosophy by a Mr. Rumsey of Virginia, whose ingenuity has been rewarded by that state with the exclusive privilege of navigating those boats in her rivers for 10 years; and as this grant was given previous to the independence of Kentucky, the act of separation guarantees his right. Some circumstance or other has prevented his bringing them into use. However, there can be no doubt of the success of his scheme; for the assembly of Virginia had the most unequivocal assurances before they gave the privilege, in a certificate signed by

general Washington and Man Page, esquire; setting forth, that they had seen a boat, they believed to be constructed by Mr. Rumsey, ascend a stream without the aid of manual labour, but without mentioning the operating cause, which has since appeared to be steam. If this principle should fail (and from such authority I do not conceive how it is to be presumed), I flatter myself that philosophy is capable of supplying the place in the appropriation of some one of the secrets with which mechanics abound.

In taking a retrospective view of the world, we are for a moment surprised when we recollect that some thousands of years had elapsed before printing was invented; and that the only way of accumulating the copies of art and genius was by the tardy method of transcribing; and that the art of navigation was for nearly as long a time devious, and regulated by no certain laws, the stars and head lands of different countries being the only guides to the adventurous mariner, who often perished when the heavens were obscured. O Liberty! how many blessings hast thou brought us! Man, in promulgating his opinions, now finds security under the wings of an established freedom; and the dismal dungeon, which eclipsed the luminous mind of the celebrated Italian, would now be erected into a school for him to lecture in, instead of a prison to bewail the miserable ignorance and depravity of his fellow-creatures. Truth and reason have led to this melioration of manners—it will lead more benefits to mankind.—But should we still be obliged to row our boats against the stream, it is not only practicable but easy.

The frequent turnings in the Mississippi produce in every bend eddy water; which, with the advantage the wind affords, that blowing the greater part of the year from the south-west, and directly up the windings of the river, by reason of the vacancy between the banks and rising forests on either side, afford a channel for the current of the
air,

air, is sufficient with sails, keeping as much as possible in the eddy water, to carry a boat 50 miles a day up the stream.

To account for those winds philosophically would be extremely easy; but, as it is a circumstance notorious from the testimony of voyagers in the Mississippi and Ohio, I presume the test of experience will be preferred to any philosophical disquisition upon the subject.

Should this navigation prove too tedious, and no improvements appear likely to be made in it, the importing into the country may be facilitated by another channel, from the gulf of Mexico up the Mobile, which is a lazy current; from the principal branch of which there is but a short passage to a branch of the Tenafsee, when you will have the advantage of the stream quite into the Ohio. I have enumerated this circumstance merely for the sake of information; for I have not the smallest doubt of the eligibility of the navigation of the Mississippi, which is proved from the experiments that are daily making.

The distance from Pittsburgh to the Muskingum is 173 miles; to the Little Kanhaway 178; to the Great Kanhaway 285; to Great Sandy 342; to the Scioto 390; to Limestone 500; to the Little Miami 510; to Licking creek 524; to the Great Miami 550; to the Great Bone creek 582; to the Kentucky 626; to the Rapids 703; to Salt river 723; to Green river 922; to the Wabash 1019; to Cumberland river 1113; to the Tenafsee 1126; to the Mississippi 1183; from thence to New Orleans is about 1005.

I have mentioned that it is about 230 from the mouth of the Ohio up the Mississippi to the mouth of the Missouri and about 20 from thence to Illinois, which is navigable for batteaux to its source. From thence there is a portage only of 2 miles to Chickago, which is also navigable for batteaux to its entrance into lake Michigan, which is a distance of 16 miles. This lake affords communication with the river St. Lawrence through lake Erie, passing Niagara

by a portage of 8 miles. The lakes Erie and Michigan are navigable for vessels drawing 6 and 7 feet water. This is one of the routes by which the exchange of commodities between the northern and southern parts of this empire will be facilitated.

In continuing the plan of intercourse, it will be found extremely easy to pass through lake Ontario to Wood creek; up Wood creek, and by a portage of about 3 miles, you arrive at a creek, which in 3 miles more brings you to Fort Edward upon the Mohawk river, a branch of Hudson's river. There are several carrying-places between that and its junction with Hudson; but very little labour would remove them, and which I have no doubt but the state of New York* will be judicious enough to set early about. It is certain they have ordered surveys to be made, and plans are forming for the removal of those obstructions. It has been long in embryo with them. It was impossible a plan of so much utility could escape that sage and penetrating politician general Schuyler, whose vast estate lies mostly in that part of America.

There are also portages into the waters of lake Erie from the Wabash, Great Miami, Muskingum, and Allegany, from 2 to 16 miles†. The portage between the Ohio and Potowmac will be about 20 miles when the obstructions in the Monongahela and Cheat rivers are removed, which will form the first object of the gentlemen of Virginia when they have completed the canal on the Potowmac.

The obstructions to the navigation of the Great Kanha-way are of such magnitude, that it will require a work of

* That state passed an act of assembly in July 1792, for removing all the obstructions between Hudson's river and lake Ontario; by which means, when it is done, there will be an inland navigation, taking its various courses, of nearly 2000 miles in extent.

† Some of these have been noticed in a note in a preceding part of this work.

ages to remove them; but if ever that should be done, there will be an easy communication between that and James river, and likewise with the Roanoke, which runs through North Carolina. But this is an event too remote to deserve any consideration at present.

All the rivers in this country of 60 yards wide and upwards, are navigable almost to their sources for flat-bottomed boats during their floods, and for batteaux the greater part of the year, the Great Kanaway and Little Miami excepted. The Tenasee has a considerable fall where it passeth through Cumberland Mountain, where there must be a portage also. From thence it is navigable quite to Holston*.

The rapids of the Ohio I have described in a former letter†. They are no obstruction in high water to boats going

* Tenasee river is navigable by vessels of great burden to the Muscle Shoals; those shoals are only to be passed in small boats or batteaux; from the Muscle Shoals, the river is navigable in boats of 40 or 50 tons burden, to the Virginia line.—The Cumberland river is navigable in large vessels to Nashville, and thence in boats to the mouth of Obed's river.—Duck river is navigable in boats about 90 miles. The waters of Harpath, Cany-fork, Stones, Roaring and Red river, have uniformly a gentle current towards the mouth, whence they are all navigable in boats for a considerable distance. In a word, no spot can be marked in that country, that is more than 20 miles from a boatable stream, so great are its advantages of water conveyance. There are five navigable rivers in this territory, which discharge themselves immediately into the Mississippi: Wolf, Hatchee, Forked-deer, Obion, and Reel-foot. So that the whole country is well intersected by rivers; and most of those rivers are navigable by large boats: some of them by ships. Wolf river is already described in p. 40.

EDIT.

† Colonel Gordon, in his journal down the Ohio, mentions, "That those falls do not deserve that name, as the stream on the north side has no sudden pitch, but only runs over a ledge of rocks. Several boats," he says, "passed them in the driest season of the year, unloading one half of their freight. They passed on the north side, where the carrying-place is three quarters of a mile long; on the south-east side it is about half that distance, and is reckoned the safest passage for those who are unacquainted with it; but it is the most tedious, as, during part of the summer and autumn, the batteaux-men drag their boats over the rock. The fall is about half a mile

going down the river, and indeed batteaux may pass almost at any time. There are two small rapids in the Wabash between its mouth and St. Vincents; but they are no impediment to navigation, except at times of low water. The Kaskaskia is a small river which runs into the Mississippi below the Illinois, and is navigable a considerable way above the plains. The Mississippi is navigable to St. Anthony's falls, without any obstruction. Carver describes it as navigable above them as far as he travelled. We have too little knowledge of the Missouri to form any decided opinion of the extent of its navigation. It is however certain, that it is a more powerful stream than the Mississippi, and in entering that river, it triumphantly rushes across, and its turbid waters, unmixed, seem to disdain a connexion so inferior. From the best information that we have been able to collect, it is navigable for 12 or 1500 miles above its mouth, without obstruction; and I think it is not unlikely that in settling the country towards its source, we shall find it is not remote from the sources of the streams running into the Pacific ocean, and that a communication may be opened between them with as much ease as between the Ohio and Potowmac, and also between the settlements on the Mississippi and California. This circumstance is the more likely to happen, as it does not appear that the ridges of hills which divide the waters of the Pacific ocean from the waters of the Mississippi, are either so high or so rugged as the Allegany mountains*.

You

a mile rapid water, which, however, is passable, by wading and dragging the boat against the stream when lowest, and with still greater ease when the water is raised a little."

* As the general surface of the land slopes to the S. E. and as the heights of the tops of the mountains decrease gradually on the eastern side, so the general flow of the great rivers has a course which such a face of country naturally gives: while they continue to run in any one vale, their course is S. W.; whenever through the gaps or intersections of the mountains they can force a way eastward, they do, tumbling over rocks, rifts, and precipices, in continual falls

You will observe, that, as far as this immense continent is known, the courses and extent of its rivers are extremely favourable to communication by water ; a circumstance which is highly important, whether we regard it in a social or commercial point of view. The intercourse of men has added no inconsiderable lustre to the polish of manners ; and, perhaps, commerce has tended more to civilize and embellish the human mind, in two centuries, than war and chivalry would have done in five.

The federal government regulating every thing commercial, must be productive of the greatest harmony, so that while we are likely to live in the regions of perpetual peace, our felicity will receive a zest from the activity and variety of our trade. We shall pass through the Mississippi to the sea—up the Ohio, Monongahela and Cheat rivers, by a small portage, into the Potowmac, which will bring us to the federal city on the line of Virginia and Maryland—through the several rivers I have mentioned, and the lakes, to New York and Quebec—from the northern lakes to the head branches of the rivers which run into Hudson's bay into the arctic regions—and from the sources of the Missouri into the Great South sea *. Thus in the centre of the earth,

falls and cataracts south-easterly ; and so along each stage, and so from one stage to another, is their course in great zigzags S. W. and S. E. Such is the course (speaking generally) of the Delaware, Susquehanna, and Potowmac rivers. The lesser rivers, which run only from off the eastern slope of these mountains (such as Rapahanoche, James river, Roanoke, and the other rivers of the Carolinas), urge their course in all ways and windings to the sea at S. E.—POWNALL.

* Besides the several channels of communication already mentioned, there are two others which, in a very few years, will be opened ; as the Pennsylvanians have already turned their attention toward them.

One from lake Erie to a place called Le Bœuf, down the Allegany, to a river called Kiskisminitas, then up the same a certain distance, and from thence by a short portage to a branch of the Susquehanna, called Juniata. The other is from lake Ontario to the east branch of the Delaware, which it is said will not be attended

earth, governing by the laws of reason and humanity, we seem calculated to become at once the emporium and protectors of the world †.

Before

tended with much difficulty; and which will be a direct communication between Philadelphia and that lake.

† There is a ridge of hills, generally called the Shining Mountains, which begin at Mexico, and continue to the east of California, that separate the water of those rivers which fall either into the gulf of that peninsula, or the gulf of Mexico. From thence, as they continue their course northward, between the waters of the Mississippi, and the rivers that empty themselves into the Pacific ocean, and end in about lat. 48 or 49, where several rivers have their sources, which either run into Hudson's bay, or the South sea.

These hills lying nearly parallel with the Allegany mountains, a considerable distance from the Pacific sea, form, if it may be so called, a great valley, which constitutes what is called the Western country of America, and is nearly in the centre of this vast continent.

In reflecting upon the object of the federal government, and the rapid strides it is making, it appears rather puerile in the United States to think of making the seat of their government permanent upon the Potowmac; or at least it would be so, to run the country to heavy expences, when it is obvious that posterity will, in the course of a century at farthest, remove it to the Mississippi, which is the most central, and consequently the proper place. By that means the efficiency of the federal government will act like the vital fluid which is propelled from the heart, and give motion and energy to every extremity of the empire.

The country between cape Florida and cape North, the southern head-land of the gulf of St. Lawrence, lies between lat. 25 and 48, and west long. 82 and 66; and the country between California and Nootka sound, between lat. 30 and 47, and west long. 118 and 128, which is a distance between 15 and 1600 miles from north to south, and between 2500 and 3000 from east to west; so that if we take the medium, and make an allowance for the probable extension of the United States both to the northward and southward, it appears pretty clearly, that in a spot upon the Mississippi, nearly lat. 44, I think upon lake Pepin, or at St. Anthony's falls, ought to be placed the permanent seat of the federal government.

From a point lat. 44, upon the Atlantic coast, and running from thence a due west line, until it strikes the Mississippi, is a distance of nearly 1200 miles, and from thence to the Pacific coast, continuing the same line, it is something more; but the difference is immaterial, while the communications from thence would be facilitated to every part of the empire, by the peculiar advantages of
the

Before I finish this letter, I shall just enter into some of the minutiae of the distance and time of descending down the Ohio,

the various navigable rivers that have their sources in the same neighbourhood. Carver has described them as follows :

“ The four most capital rivers in America, *i. e.* the St. Lawrence, the Mississippi, the river Bourbon, or Red river, and the Oregon, have their sources in the same neighbourhood. The waters of the three former are within thirty miles of each other; the latter is farther west.

“ This shews that these parts are the highest land in North America; and it is an instance not to be paralleled on the other three quarters of the globe, that four rivers of such magnitude should take their rise together; and each, after running several courses, discharge their waters into different oceans, at the distance of 2000 miles from their sources. For in their passage from this spot, to the bay of St. Lawrence east, to the bay of Mexico south, to Hudson’s bay north, and to the bay of the straits of Annian west, each of these traverse upwards of 2000 miles.”

Besides, the same author has described those places (and the truth of which is supported by the testimony of other travellers with whom I have conversed) as one of the most beautiful countries upon the earth. These are his words :

“ The Mississippi below lake Pepin, flows with a gentle current; but the breadth is very uncertain, in some places it being upwards of a mile, in others not more than a quarter.

“ This river has a range of mountains throughout the whole way, which in particular places approach near to it, in others lie at a greater distance.

“ The land between the mountains on either side, is generally covered with grass, with a few groves of trees interspersed, near which large droves of deer and elk are frequently seen feeding.

“ In many places, pyramids of rocks appeared, resembling old ruinous towers; at others, amazing precipices:—and what is very remarkable, whilst this scene presented itself on one side, the opposite side of the same mountain was covered with the finest herbage, which gradually ascended to its summit. From thence the most beautiful prospect that the imagination can form opens to your view.

“ Verdant plains, fruitful meadows, numerous islands, and all abounding with a variety of trees that yield amazing quantities of fruit without care or cultivation: such as the nut tree, the maple, which produces sugar, vines loaded with delicious grapes, and plum trees bending under their blooming burdens;—but above all, the winding river flowing gently beneath, and reaching as far as the eye can extend, by turns attract your admiration, and excite your

Ohio, which will serve for an account of all the other rivers. Mr. Jefferson has stated, that "the inundations of the Ohio begin

your wonder. The lake is about 20 miles long, and nearly 6 in breadth.

"The Mississippi, as far as the entrance of the river St. Croix, about 40 miles above lake Pepin, is very full of islands; some of which are of a considerable length. On these also grow great numbers of the sugar tree, and around them vines loaded with grapes creeping to their very tops. From the lake a few small mountains are to be seen.

"The river St. Pierre flows through a most delightful country, abounding with all the necessities of life, which grow spontaneously; and with a little cultivation it might be made to produce its luxuries.

"Wild rice grows here in great abundance, and every part is filled with trees bending under their loads of fruit; such as plums, grapes, and apples—The meadows are covered with hops and many sorts of vegetables; while the ground is stored with useful roots;—with angelica, spikenard, and ground nuts as large as hens eggs.

"A little distance from the river are eminences from which you have views that cannot be exceeded for their variety and beauty;—amidst these are delightful groves, and such amazing quantities of the sugar tree, that they would produce sugar sufficient for any number of inhabitants.

"A little way from the mouth of this river, on the north side of it, stands a hill, one part of which, that toward the Mississippi, is composed entirely of white stone of a soft nature. But what appears remarkable is, that the colour of it is as white as the driven snow. The outward part of it was crumbled by the wind and weather into heaps of sand, of which a beautiful composition might be made; or, I am of opinion, that, when properly treated, the stone itself would grow harder by time, and have a very noble effect in architecture.

"Near that branch which is termed the Marble river, is a mountain, from whence the Indians get a sort of whetstone, out of which they hew the bowls of their pipes. This country likewise abounds with a milk-white clay, of which china-ware might be made, equal in goodness to the Asiatic.

"At the falls of St. Anthony the Mississippi is above 250 yards wide, and forms a most delightful cataract. The fall is thirty feet perpendicular, and the rapids below, which are about 300 yards more, render the descent considerably greater; so that when viewed at a distance they appear to be much higher than they really are.

"The

begin about the last of March, and subside in July. He has written his notes on Virginia like a man of erudition, and
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“ The country round is extremely beautiful.—It is not an uninterrupted plain, where the eye finds no relief; but it is composed of many gentle ascents, which are covered with the finest verdure, and interspersed with little groves, that give a pleasing variety to the prospect.

“ On the whole, when the falls are included, which may be seen at the distance of four miles, a more pleasing and picturesque view cannot, I believe, be found throughout the universe.

“ The country, about 60 miles above the falls, to the river St. Francis, is in some places hilly, but without mountains; and the land is tolerably good. A little above this, to the north-east, are a number of small lakes, called the Thousand Lakes;—the country about which, though but little frequented, is the best within many miles for hunting, as the hunter never fails returning loaded beyond his expectations. The Mississippi here begins to grow small, it being not above 90 yards wide.”

Other travellers agree with Carver, also, in saying that there is a considerable proportion of good land upon lake Superior and upon Red river—They describe the country about lake Winnepeck, which lies to the north-west of lake Superior, as very fertile; it producing vast quantities of rice, which grows spontaneously; and say, that the sugar tree grows in great plenty; which, if true, not only proves that the soil must be very fruitful, as they never grow in indifferent land; but that the climate must be considerably more temperate here than it is upon the Atlantic coast 10 degrees farther southward; for I never heard of a sugar tree being seen on the eastern coast of America as far north as lat. 43°. This opinion is confirmed by the following remarks made by Carver:

“ I can from my own knowledge affirm, that I found the winter I passed to the westward of the Mississippi far from severe; and the north winds blowing on these countries, considerably more temperate than I have often experienced them to be nearer the coast [meaning the Atlantic coast]; and that this did not arise from an uncertainty of the seasons, but was annually the case, I conclude, both from the small quantity of snow that fell, and a total disuse of snow shoes by the Indians, without which none of the more eastern nations can possibly travel during the winter.”

When it is remembered, that the settlements of the United States have extended, in little more than a century, upwards of 600 miles back from the Atlantic, under the influence of almost continual indian wars, exclusive of many other causes which operated to retard their growth, and which are incidental to the rise of all infant countries circumstanced in the peculiar manner that
Ame-

considering that he never was in this country, he has given such an account of it as cannot be displeasing to an European.

America was ; and that it is not only probable, but morally certain, that the present strength of the settlements west of the Allegany mountains, must in the course of a very few years secure them from all invasion ; it appears to me to be an object of the greatest importance with the present federal government to look forward to a circumstance, upon which the perfection of their political system depends : and it is the more so, as the present æra of reason puts it in their power to extend the advantages of civilization with an accelerated force, to which no period that we are acquainted with in the annals of man, has been equally auspicious.

This object has not escaped many of our most penetrating legislators ; and perhaps the sentiment would have been general, if there had been time, since our independence, for the habits of life, and the influence of education, to be done away. But the system of the aggrandizing commerce, which originated in Europe, had been transplanted upon the shores of this continent, and has taken such deep root, as in some instances to militate to the injury of philosophy, and the happiness of mankind.—Hence it has happened that the spirit of selfishness which is the characteristic of prejudice, folly, and impolicy, has sometimes betrayed its features in the decisions of our union.

That this should have happened is not in the least extraordinary ; but it is to be presumed, since the Europeans are beginning to follow our example, it will give stability to those wavering characters, which will always be found among men who have not judgment sufficient to discover the principles of a just policy, nor the firmness to adopt them without the countenance of others ; so it has happened, that there have been found evil geniuses, or ignorance, which have reprobated the sublime and reasonable views of the union as chimerical.

The advantages of peace have been clearly ascertained by the most enlightened nations of Europe after struggles for dominion that have cost them millions of lives, and brought a load of evils upon themselves, which nothing but Herculean strength would be able to support : but if man has been treated hitherto as a beast of burden, the most enlightened philosophers, particularly Dr. Adam Smith, have proved these benefits, and the folly of colonization.

I therefore think when we contemplate the progress of reason, the peculiar nature of the federal government, and the singular circumstance of a people of one entire continent speaking the same language, it seems that nothing short of a revolution in the natural intellects of men, can frustrate the design.

I have entered into these minutiae by way of illustrating, as far

pean. But, as in every thing which has characterised his political life, his judgment in this appears superficial, and his mind attached to the theory of its own fabrication. Frequent rains in the latter end of the autumn produce floods in the Ohio, and it is an uncommon season when one of those floods does not happen before Christmas. If there is much frosty weather in the upper parts of the country, its waters generally remain low until they begin to thaw. But, if the river is not frozen over (which is not very common), there is always water sufficient for boats of any size from November until May, when the waters generally begin to subside; and by the middle of June, in most seasons, they are too low for boats above 40 tons, and these must be flat-bottomed. The frost seldom continues so long as the middle of February, and immediately upon its breaking, the river is flooded; this flood may in a degree subside, but for no length of time; and it is from that period until May that the boats generally come down the river. The distance of descending is in proportion to the height of the water; but the average distance is about 80 miles in 24 hours, and from 60 to 100 are the extremes: so that the mean time of going in a flat-bottomed boat from Pittsburg to the Rapids, is between 8 and 9 days, and about 20 days more to New Orleans: which will make a passage from Pittsburg to that place nearly a month. The inundations of the Mississippi commence something later than those of the Ohio; but it is very certain they begin in March, and subside in July. This is the most proper time to ascend the river, as you avoid the shoals, have finer weather; but, above all, when the water is high you have stronger eddies: and with taking these advantages, and with dexterous as the subject required, and my abilities would permit, to shew the advantages of the system of government adopted by America; and at the same time to shew that the country toward the head waters of the Mississippi is beautiful, rich, and abounding in all the varieties of nature necessary to support and embellish a great capital.

watermen, you may proceed 50 miles a day, which will bring you back to the rapids of the Ohio in 40 days, making a large allowance for contingencies.

I shall take leave of you for the present, with observing that the smaller rivers have no stated periods to govern their inundations; but are subject to be flooded by all heavy rains, which is a great advantage to the country, as it affords the inhabitants frequent opportunities of sending their produce to the several markets upon the large rivers.

I am,

Yours, &c.

HERE the reader will not be displeased to see the observations on these parts in the topographical description of the middle british colonies, &c. by T. Pownall, M. P. late governor of Massachusetts's bay, and South Carolina, and lieutenant governor of New-Jersey.

THE land, south-westward of Hudson's river, may be considered as divided into a number of stages. The first object worthy regard, in this part, is a rief, or vein of rocks, of the talky or isinglassy kind, some two or three, or half a dozen miles broad; rising generally some small matter higher than the adjoining land; and extending from New-York city, south-westerly by the lower falls of the rivers Delaware, Schuylkill, Susquehanna, Gunpowder, Patapsco, Potowmac, Rapahannock, James river, and Roanoke. This was the ancient maritime boundary of America, and forms a very regular curve. The land between this rief and the sea, and from the Navesink hills south-westward as far as probably to the extremity of Georgia, may be denominated the Lower Plains, and consists of soil washed down from
above,

above, and sand accumulated from the ocean. Where these plains are not penetrated by rivers, they are a white sea sand, about 20 feet deep, and perfectly barren; as no mixture of soil conduces to enrich them. But the borders of the rivers, which descend from the uplands, are rendered fertile by the soil washed down with the floods, and mixed with the sand collected from the sea*. The substratum of sea mud, shells, and other foreign substances, is a perfect confirmation of this supposition. And hence it is, that for 40 or 50 miles inland, and all the way from the Navesinks to cape Florida, is a perfect barren, where the wash from the upland has not enriched the borders of the rivers; or some ponds and defiles have not furnished proper support for the growth of white cedars. There is commonly a vein of clay seaward of the isinglassy rief, some 3 or 4 miles wide; which is coarse fullers earth, and excellently fitted, with a proper portion of loam, to make bricks of.

From this rief of rocks, over which all the rivers fall, to that chain of broken hills, called the Blue ridge or South mountain, there is a distance of 50, 60, or 70 miles of very uneven ground, rising sensibly as you advance further inland, and may be denominated the Upland. This consists of veins of different kinds of soil and substrata, some scores of miles in length; and in some places overlaid with little ridges and chains of hills. A peculiar stratum of soil runs in the same direction with the last through this stage. The people of the country call it red shell land. It appears to

* The country in general bordering upon the coast in this distance does certainly agree with this description, but westwardly from the coast, and within the distance of 40 or 50 miles, there are large bodies of strong found land, pleasingly diversified with hill and dale, and free from any adventitious materials, whether brought by the floods from the higher country, or superinduced by or deposited from the sea.—EDIT.

me to be a species of red marl ; although where it is dug up, or turned up with the plough, it rises in flaty lamina, and seems stony, yet it soon dissolves in the air, and is excellent wheat land. When it has been tilled for many years, so that it begins to fail in fertility, if the husbandman sets his plough a little deeper, so as to turn up a fresh layer, this, mixed with the old worn top, gives fresh power of vegetation to it.

The first place in which this stratum appears, as far as I have been able to learn, is in the Red mountains, west of Winnipissiocket lake : as running in a vein, the first appearance of it is on the west side of the range of mountains which run on the east side of Connecticut river, and beginning at Hertford, runs 10 miles south-west to Farmington, then 6 miles west to Penthorn, then south-west to the mountains. It appears again in New-Jersey, at Schuyler's mines, runs thence to Brunswick, and spreading goes across the Jerseys, over the high ridge on which Prince-town stands. I am told it continues in the same general direction across Pennsylvania, but I had not the means of pursuing it.

Limestone is found almost everywhere in the upper parts of this stage, and it is the general dressing that the husbandmen use.

To the northward of Newark in New-Jersey, is found an exceeding good firestone, which stands well.

The soapstone is found about the Delaware river ; and the asbestos in many parts of this stage.

There are in New-Jersey two copper mines, one at col. Schuyler's on the Passaic river, a very fruitful one of rich ore ; the water obstructed the working of it for some time : a worse perplexity about the title since his death has stopped its being worked. It was said that there was silver mixed in with this ore ; it certainly sold as ore at a great price. The other is at Mr. Stevens' on the upper part of the Raritan. Now and then little grains of native pure gold are found in
this

this ore; I have had some of it. This sold for 60l. and 62l. sterling a ton in 1754, Schyler's for above 70l. sterling.

I have not heard of any lead any where as yet found on the south or east side of the mountains; there are several appearances of it on the west side. The French worked a lead mine in the Illinois country.

The declivity of the whole gives rapidity to the streams; and our violent gusts of rain have washed it all into gullies, and carried down the soil to enrich the borders of the rivers in the lower plains. These inequalities render half the country not easily capable of culture, and impoverish it, where torn up with the plough, by daily washing away the richer mould that covers the surface.

The South * mountain is not in ridges like the Endless mountains, but in small, broken, steep, stony hills; nor does it run with so much regularity. In some places it gradually degenerates to nothing, not to appear again for some miles, and in others spreads several miles in breadth. It runs in more regular ridges through Virginia under the name of the Blue ridge, Pignut, and South mountain; after it has passed Maryland, it spreads in more regular hills, the north ridges of which trending north for about 13 miles approach near to the Kittatinny ridge; but resuming again the main course, the hills of this mountain range along between Yellow breaches and Conawegy creeks to the river Susquehanna opposite to the mouth of Swataro creek, and continue north-east, under the names of the Flying† and Oley hills, through Pennsylvania to the Delaware: its southern ridge runs off east-north-east by Hanover to Susquehanna, where Pequa creek falls into it, and thence to Trenton. In New-Jersey the northern hills narrow and rise again into the form of a ridge, and is called Mescapetcung; and in New-

* This mountain, in its several ridges as it crosses New-Jersey, Pennsylvania, Maryland, and Virginia, so abounds with iron ore that it might not improperly be called the *Iron Mountain*.

† So called from the innumerable flights of turkies on them.

York the Highlands. Between this range and the Kittatinny mountains, as they run through Pennsylvania, lies the vale of Talpahockin, one of the great rich vales of Pennsylvania. In New-Jersey and New-York almost the whole vale is a great swamp or drowned lands. Money alone has been wanting for the general draining of these lands. Whenever they are drained, this tract will become one of the richest in America. The southern part, as it passes through New-Jersey, is elevated upland, but not ranges of hills. Among the hills into which this mountain spreads itself, between the Susquehanna and Schuylkill rivers, to a breadth from 15 to 30 miles, run several vallies. A succession of such, divided from each other by little, hilly branchings of the main hills, run from Wright's ferry on the Susquehanna to the Swedes ford near Norriton on the Schuylkill, some 2 miles broad, some more. The lands are of a limestone good farming soil. Every farmer has a limekiln for the dressing of his land, and they raise a great deal of wheat. The sides of the hills are covered with woods: the timber in general oak, chefnut, and hickory. The first valley which the road from Philadelphia to Lancaster passes through runs from the Swedes ford to the middle branch of Brandywine creek, and is about two miles wide: hence the road runs slanting over 3 ascents and 3 rivulets about 13 miles, and comes to a second valley which runs along the south side of the range called Welsh mountains to Lancaster: whence it continues in a bosom of gently swelling hills to Wright's ferry on the Susquehanna. These successions of vallies appeared to me as I rode along them the most charming of landscapes. The bottoms of the vales were full of cultured farms, with houses, such as yeomanry, not tenants, live in: these were busked up with gardens, and with peach and apple orchards all round them, and with every convenience and enjoyment that property and plenty could give to peace and liberty. My heart felt an overflowing of benevolence

at

at the sight of so much and such real happiness. Between the South mountain and the higher chain of the Endless mountains (often for distinction called the North mountain, and in some places the Kittatinny, and Pequillin), is a valley of pretty even good land, some 8, 10, or 20 miles wide, which is the most considerable quantity of valuable land the English are possessed of; and runs through New-Jersey, Pennsylvania, Maryland, and Virginia. It has yet obtained no general name, but may properly enough be called Piemont, from its situation. Besides conveniences always attending good land, this valley is everywhere enriched with limestone.

On the east side of the mountains, next the european settlements, there are some *, but very few, and those thin beds of coal: there are some brackish licks or springs, but no salt springs. On the west side, both these abound everywhere.

The Endless mountains, so called from a translation of the indian name bearing that signification, come next in order. They are not confusedly scattered, and in lofty peaks overtopping one another, but stretch in long uniform ridges, scarce half a mile perpendicular in any place above the intermediate vallies. Their name is expressive of their extent, though, no doubt, not in a literal sense. In some places, as the head of Roanoke, the traveller would be induced to imagine he had found their end, but let him look a little on, and he will find them again spread in new branches, of no less extent than what first presented themselves. The further chain, or Allegany ridge of mountains, keeps mostly on a parallel with the isinglassy rief, and terminates in a rough stony piece of ground at the head of Roanoke and New river. The more easterly chains, as they run further southward, trend also more and more westerly; which is the reason that the Upland and Piemont valley are so much

* One at the falls of James river.

wider in Virginia than farther northward. This south-westerly trending of the hither chains brings them to meet the Allegany mountain, and in several places to intersect it, and form new series of mountains; as is the case, I believe, of the Ouasfoto.

They certainly do end to the northward and north-east, at the Kiats Kill mountains, and at the Brimstone and Oneida ridge, which lie south of Mohawks river. The triangular mountainous tract of Couchsackrage, lying between the Mohawks and St. Lawrence rivers and lake Champlin, and the range of mountains on the east side Hudson river, are distinct and different ranges of country.

There are many chains of the Endless mountains; and so far as we are acquainted with them, we observe that each chain consists of a particular kind of stone, and each different from the rest: which differences continue for their whole extent, as far as I can learn. When I crossed them I was not apprehensive of this, and omitted enumerating their species. Some of the chains are single narrow ridges, as the Kittatinny, some spread 2 or 3 miles broad on the top; some steep on one side, and extending with a long slope on the other: and the steeper they are, the more rocky; but they are everywhere woody where there is soil proper and sufficient to support the trees. Towards the further chains north-eastward, the mountains consist of rich land, and in some places are but as large broad banks, which take 2 or 3 miles to cross.

Many of these chains consist of several ridges, one main ridge, and a number of lesser ones, and sometimes with irregular hills at their foot in the vale. Where any of those chains so spread, they meet and sometimes cross each other: sometimes lesser branches or spurs shoot out from the main ridges, and these also generally end by irregular hills.

In the way to Ohio, by Franks Town, after you are past the Allegany mountain, the ground is rough in many places,
and

and continues so to the river. Hereabouts the Laurel hill springs from the mountain, and continues, though not large, in a very regular chain, I believe, to the Ouafiotto mountain. For though the Allegany mountain is the most westerly, on the west branch of Susquehanna, it is far from being so, back of Virginia.

Except the further ridges, as just now mentioned, there is but little good land in the mountains; to be sure not one tenth part is capable of culture; and what small matter is so consists of extreme rich soil, in lawns, on the river edges, being so much rich mud subsided there; and commonly gathered above falls, formerly in drowned land, and now drained by the rivers wearing channels through the rocks, which, like dams, held up the waters at each respective fall.

Amidst the detail of these dry descriptions, it may perhaps relieve and amuse the reader to insert here some observations and opinions extracted from Mr. Evans's Journal*.

"The stones in all parts of these mountains are full of sea shells: it is not in the loose stones scattered through the vales that these shells abound only, but they are found at the tops of the mountains also. I saw some mixed with the rocky base of a high mountain; in Wishoôchon creek I found a soft stone 5 or 6 feet long, as full of all sorts of shells as if they were kneaded into a lump of brown clay; there was all the variety that could be imagined, and many that had never before come under my observation, many that I could not imagine to exist in nature as the shells of any animal, particularly a large escalop with corbels, as fine as those of cockles. I was almost disposed to pronounce this a *lufus naturæ*, but I have since found that sort of shell,

* Mr. Lewis Evans, to whom the indian traders gave an account of the country now called Kentucky, many years before its settlement, and who published his first map of it as early as 1752.

and many other of the forts which I saw here, in a bed of soil more than 30 feet under ground in Virginia *. The observations also which I had an opportunity of making at Moor's mill near London Town, in Maryland, shewed me how ill imagined any such idea was. This place is not far from the sea-side, the earth had been dug from an adjoining bank for a mill-dam; at the top I found the shells mixed with a loose sand; at 3 or 4 feet deep they were inclosed in a sandy clay; and at 4 or 5 feet deeper, the clay was gradually hardened into a loose kind of stone, in which were mixed shells, many resembling the specimens which we had before observed in the mountains. This instance of the soil hardening by degrees from a loose sand to an indifferent stone in the space of 8 or 10 feet, where there could be no doubt but that the shells were genuine, and where the shells were actually of the same sort as those which I had observed in the mountains, convinced me that those shells of the mountains were real, and had been mixed with and finally incrustated in the stones where they were

* This description of the shells in these high mountains is very philosophically and clearly accounted for by Mr. Buffon, in his *Theory of the Earth*.

I am convinced that the works of Buffon and Evans were equally unknown to each other.—Evans, like a good christian, but a bad naturalist, has been forced to call in the miraculous tale of the *deluge*, to account for this very natural appearance. Kilkenny marble is full of small conchæ and other shells. Some years ago, I took an old grave-stone, that had lain in a horizontal position for some hundreds of years, in the chancel of a country church in Suffolk; it was a blue granite marble; and placed it as an hearth in my kitchen, and burnt wood on it many years: it was 6 inches thick. When I removed it, to have a modern wind-up coal-range fixed in its place, I observed it broken into several pieces by the fire, and flinging logs of wood on it: it then appeared to me to be a mere concretion of shells: I tried several pieces of them, and they all fermented in common vinegar, and dissolved in a stronger acid: thousands of the shells were as complete as to form, although burned, as if they had just been gathered on the sea-shore.—EDIT.

found,

found, by the same process as here appeared in its several gradations.

“ Various systems and theories of the present earth have been devised in order to account for this phenomenon. One system supposes that the whole of this continent, the highest mountains themselves, as they now appear, were formerly but one large plain, inclining with a considerable slant towards the sea; that this has been worn into its present appearance of ridges, with vales between them, by the rains of the heavens and waters of the earth washing away the soil from the upper parts, and carrying it down to seawards: that the soil thus carried down and lodged in various places hath in a series of ages formed the lower plains of the Jerseys, Pennsylvania, Maryland, Virginia, and the Carolinas. The most material arguments to support this hypothesis are, that the very tops of the mountains on the western side, though much higher than those bordering on the english pale, consist yet of extraordinary rich land, but that towards our side the soil of the very vales as well as of the mountains is thin and stony, and the rock almost bare, as if the earth had been swept away off from them. The downfall of waters from the melting of the snow, the rains, and the swollen springs, is such among the mountains, and the discharge from thence so great, that the freshes on the Susquehanna river, where it is a mile broad, rise 20 feet, though they are discharged with a violent and precipitate current. These freshes carry down with them immense quantities of soil which they begin to drop as the velocity of their course slackens in gliding over the lower plains, and which they finally lodge in bars and islands at the mouths of the rivers where they meet the sea *. Thus have been
many

* I will here transcribe an extract from a letter of monsieur Vaudreuil, the governor of Louisiana, dated September 28, 1752. “There is infinite difficulty,” says he, “in settling towards the mouth of the river Mississippi, on account of the immense expence in banking

many very extensive countries formed at the mouths of all the great rivers in the world, and thus at the several mouths of the many great rivers ranging so near one another along this coast may that long-continued range of flat country, which is herein before called the lower plains, be formed. And if we suppose this operation to have begun immediately at the carrying off of the waters of the deluge, when the earth was in a state of fluidity, and to have continued in operation ever since, the effects will not appear more than natural. This hypothesis accounts for all the appearances which are observed, and all the peculiarities which are found on the lower plains of America, such as the nature of the different layers of strata of which they consist, for the sea shells and fish bones being found at 30 and 40 feet deep and probably deeper, if examined for the various logs, and especially for the cedar swamps and pine bogs, which are perfect mines of timber.

“ But we must have recourse to some other explanation, in order to account for the situation of the shells on the tops of the mountains.

“ It is easy to shew the earth and sea may assume one another's places ; but positively to assert how that hath actually happened in times past, is hazardous ; we know what an immense body of water is contained in the great lakes at the top of the country, and that this is dammed and held up by ridges of rocks : let us suppose these ridges broken down by any natural accident, or that in a long course of ages a passage may be worn through them, the space occupied by the water would be drained : this part of America, disburdened of such a load of waters, would of course rise, as the immediate effect of the shifting of the centre of gravity in the globe at once or by degrees, much or little, banking against the inundations of the sea and land floods. I am against settling it as yet ; and for waiting until the ground be more and more raised by the accretion of soil ; as it hath been 3 feet in the space of 15 years.”

accord-

accordingly as the operation of such event had effect on that centre. The directly opposite part of the earth would, as part of the same effect, sink and become depressed, and liable to be deluged without any apparent reason discoverable in those parts for such a change. There is no doubt but that many such accidents have happened in the world before it became settled in its present condition and state. That there have happened some such accidents, by which the general body of the land of America hath been raised, we have reason to collect from the Chinese chorography, called Quang-yn-ki, which describes Thaoffanas in Corea, which is now divided from it by the gulf Leao Tong, where the sea has encroached so much that the mountain Kieshesang, which was formerly part of the continent, is now near 500 leagues off at sea*. If the land of China became thus much depressed by the change of the centre of gravity of the earth, those parts of America which lie nearly in an opposite meridian would be equally raised. No doubt many partial deluges have happened from such causes, the reason of which, for want of knowledge in what had passed on the opposite side of the globe, could never be explained. Some such changes may have come gradually, and advanced by such slow degrees, as that in a period of a few ages would not be perceptible; history therefore could take no notice of them.

“ We know from observation how much higher the Atlantic ocean is than the Pacific, and how it is piled up against the american coast on the western shore of the gulf of Mexico, driven thither by the trade winds and attraction of the moon and sun. Let us suppose it possible that a passage might be forced through the isthmus of Darien or some other part of America between the tropics; these waters then would pour down from this height, and be discharged through this passage, instead of running back through the

* Buffon handles this very subject in a masterly manner in his Theory of the Earth.—EDIT.

gulf of Florida ; the height of the Atlantic would be lower between the tropics, and the level of the Pacific ocean would rise ; the centre of gravity of the earth would shift, and there would be few places on the earth but what would perceive the effect, although none would be able to conceive the cause, that did not know the particular event of this passage being opened." Suppose now that the Bahama and Caribbee islands were once (which they certainly appear to be) an isthmus (like that of Darien), the continuation of the Apalachian mountains and the Al-a-Bah'ma country ; that what is now the gulf of Mexico was a most extensive plain, and that some such accident as is above supposed did actually happen by the breaking of the sea through this chain of land into this plain now the great gulf, that part of the globe actually becoming depressed, the opposite point would be raised. " I have mentioned," says Evans, " these different systems as they occurred to me on viewing the various phænomena which meet our eye in the mountains, for the information of those who are curious in inquiring into the system of our world ; but I have neither pursued the investigation with that attention, nor explained them with that closeness of reasoning, which I might have done had I been interested about them : I shall therefore beg the reader to make choice of that hypothesis which he likes best and thinks most probable ; for my own part I can conclude on neither singly." The editor * here will take up the subject where Lewis Evans has left it, and add one more hypothesis or theory to the many with which the learned have been amused.

Viewing this earth as it is, not as learned theorists suppose it should have been or was at first made ; examining with attentive investigation of facts, the actual state of its existence ; analysing the operations which heat and moisture, vegetation, corruption, and a continued process

* Governor Pownall.

of exsiccation have on it, in its ordinary course of existence; viewing the effects of earthquakes and volcanoes; I am led, by a combination of all the ideas which these objects offer, up to that state of this globe which I conceive to be its original state; and from thence I can, as I persuade myself, trace it through every progress of its changing existence. From the manner in which the land has been continually increasing upon the waters of the globe from its first appearance, I traced back my ideas to the viewing it in the first stage of its existence as a mere globe of mud: that as the earthy parts subsided and began to concrete into sand, or clay, or stone; this globe, then an aqueous planet, was the proper habitation for the inhabitants of that element only: that in time as the planet, in the natural and ordinary operations of the power of nature directed by the great Creator, dried, the land appeared; and as soon as it was thus emerged above the face of the waters began to vegetate: that such animals then, as the advancing vegetation became a proper habitation for, were created and came into being; the fowls of the air first, and every creeping thing, and the beasts of the field in the next progress: that when this earth had advanced so forward in the melioration of being as to become a proper seat and habitation for man, then, in this last state of the planet, the human race was brought into being; at first, a mere sylvan animal of the woods. Having thus pursued this theory * (for I call it no other now, though I think I could evince to the contrary) by the analysis and combination of my philosophic ideas, I proceed to examine it by the actual account which our holy scripture gives us of it.

I find therein that the first stage of this globe is there

* It is more than mere theory, it is positive fact.—Every naturalist and philosopher in Europe adopts this fact or theory, call it as you please: he cannot, and dares not, except in contradiction to his reason and senses, adopt any other theory.—EDIT.

described just as my ideas led me to conceive of it: there was a firmament in the midst of the waters, which divided the waters from the waters, those which were under the firmament, and those which were above it; the latter were called the heavens, the former were this planet. The next progress of creation was the exsiccation of this aqueous planet, so that dry land appeared, and was called earth. The next is, that the earth began to vegetate grass first, shrubs next, and trees next, whose seed were in themselves. As these waters and this earth were prepared for reception and sustenance of their respective inhabitants, the waters brought forth abundantly the moving creature that hath life; the fowl also multiplied, and every creeping thing on the earth; the beast next after his kind. The last stage of this process the Divine Creator allotted to the production of man, to whom he gave every herb bearing seed, and every tree in which is fruit, to be to him for meat. He dwelt in a paradise, and did not work the land; nor gain his food by the sweat of his brow. That was (as we are taught) a curse which he afterwards entailed upon himself, through an ambition of being wise above what was ordained for him. Thus say the Indians, that we land-workers take a deal of pains to spoil a good world.

That the literal style of the apologue describes the process of the advancing existence of this planet and its inhabitants by a series of days*, and that my idea must suppose a series of ages, makes no difference; the process is the same: a myriad of years in the sight of God are but as one day. As, according to this idea of mine, the waters must naturally,

+ I am told that the word used in the original signifies not days but periods.—POWN. This it certainly does; and consequently the ancient Egyptians, from whom Moses took his incomplete account of the creation of the world, were masters of more real physical knowledge, than the moderns are willing to allow them.—

EDIT.

and

and as, according to the account in our holy scripture, they did actually cover the whole of the globe before the earth appeared; and as its appearance was gradually by a natural separation, I never was surpris'd, or thought it any extraordinary circumstance which required the supposition of some extraordinary cause to account for it, that shells and marine skeletons should be found on the highest mountains: I should think it extraordinary, and rather be surpris'd, if they were not. If you will trust nature or believe the scriptures, you will find that they have been from the creation, and are a proof, not of the deluge, but of the truth of the philosophic account of the creation given in the book of Genesis [and in the book of nature].

But to return * from this digression of amusement and speculation to business:—the analysis proceeds to describe the fifth or upper stage which lies north-west on the back of the western division. The northern part of this may be considered as one great LEVEL PLAIN continuing as yet in its original state †. Although it is the most elevated tract at the top of all this country, yet it is occupied by a mass of waters which lies on its face in five great lakes; the lands and country bordering on these lakes slope gently towards, and many streams run hence into, them ‡.

Ontario or Cataraqui, or the beautiful lake, is a mass of fresh water, very deep, and has a moderate steep bank and gravelly shore along the south side: the rivers which fall into it are apt to be sometimes barred at the entrances. This, like the Mediterranean, the Caspian, and other large invasated waters, has a small rising and falling of the water like tides, some 12 or 18 inches perpendicular ||, occasioned by

* The reflecting reader will perhaps be sorry he has returned so soon.—EDIT.

† Vide memoir presented to the duke of Cumberland, appendix to administration of the colonies.

‡ The parts here described are not pretended to be laid down accurately. Future discoveries will give local precision. We here only mean to exhibit a sketch, not a plan.

|| Partially also as the wind sets.

the changes in the state of the atmosphere ; rising higher, as the weight of the incumbent air is less, and falling, as it becomes greater, it cannot be otherwise. This lake is best fitted for the passage of batteaux and canoes, along the south side, the other having several rocks near the surface of the water ; but the middle is everywhere safe for shipping. The snow is deeper on the south side of this lake than any other place in these parts ; but the lake does not freeze in the severest winter out of sight of land. The streight of Oghniàgara, between the lake Ontario and Erie, is easily passable some 5 or 6 miles with any ships, or 10 miles in all with canoes ; then you are obliged to make a portage up three pretty sharp hills about 8 miles, where there is now cut a pretty good cartway. This portage is made to avoid that stupendous fall of Oghniàgara *, which in one place precipitates headlong 25 or 26 fathoms, and continues for 6 or 7 miles more to tumble in little falls, and run with inconceivable rapidity. And indeed the streight for a mile or two is so rapid above the fall, that it is not safe venturing near it. They embark again at the fishing battery, and thence to lake Erie it is 18 miles, and the stream so swift, that the stiffest gale is scarce sufficient to stem it in a ship ; but it is easily passed in canoes, where the current here, as in all other places, is less rapid along the shore.

This ocean of waters has but one embouchure through the Canada river, and the issue of it is a stream which bears no proportion to the immeasurable mass of waters. These lakes are found to have retired from parts which seem to have been their former shores, and decrease. There may be, in the course of nature, accidents which may lay some of these lakes quite dry, when they would become great plains or vallies.

The southern parts of this upper stage lie as one extensive broad bosom of a vale more than 1500 miles long, contain-

* Vide Peter Calm's account of it, published at the end of Bartram's journal.

ing a wilderness of waters, which all fall into and drain through the channel of the river Messachibee, or Mississippi, which signifies the father of rivers, into the gulf of Mexico; the east side of this great vale descends from the Endless mountains in gently swelling hills: the parts of this country to the north-east of the Kiskamenitas creek were, when the first edition of my map was published, very little known; nor can I learn that they are much more at present, unless to some land-jobbers, whose interest it is to keep their knowledge secret. I have however an opportunity of giving the reader a pretty accurate account of that part of it which is contained between the Ohio river and the Allegany mountains on the north-west and south-east, and the Monongahela and Great Kanhaway rivers north-east and south-west. I extract it from the journal of a second tour made by Mr. Gist in 1761, for the express purpose of examining these lands.

To begin with the Youghiogeny and its branches: the vallies on the branches or springs which form the middle forks, are but narrow at its head; but there are about 2000 acres of good farming land on the hills about the largest branch. As one approaches Laurel hill, the undergrowth towards and over this hill is so abundant in laurel thickets, that the traveller must cut his way through them: the lands of the country through which the Youghiogeny runs are broken and stony, but rich and well timbered; in some parts, as on a creek called Laurel creek, rocky and mountainous.

From the mountains to Monongahela, about 15 miles in the line of Gist's route *, the first 5 miles are good level

* Gist gives us his course by the compass, and his distance as well as he could compute, on each tack. He was an old woodman or surveyor, and could give from computation nearly the distance run: his compass shewed him the angles, and when he came to any very remarkable spot, he corrected his computation by an observation.—EDIT.

farming land with fine meadows; the timber, white oak and hickory. The same kind of land holds south to the upper branches or forks of this river 10 miles, and about the same distance north to where the Youghiogeny falls into it; the lands for about 8 miles along the same course of the river on each side, though hilly, are richer and better timbered; the growth walnuts, locust, poplars, and sugar trees or sweet maple. The bottoms or intervals by the river side are about 1 mile wide, in some places 2 miles. For several miles more down the river on the east side the intervals are very rich, and a mile wide: the upland, which he examined for 8 or 10 miles east, extraordinary rich and well timbered. The intervals on the west side are not above 100 yards wide; the upland on this side the river, both up and down it, rich soil and full of the sugar tree.

He next examined the lands in several courses, forming, to speak generally, a south-west course, first up by some branches of the Monongahela, and then across the heads of several rivers which run into the Ohio till he struck the Great Kanhaway river: he found the land in general hilly but rich, rocky in some places, yet not poor; the timber, walnut, ash, and sugar trees. The intervals on the borders of the creeks in some places 200 yards, in others a quarter of a mile broad. When he came within about 21 miles of the Kanhaway, he crossed over a high ridge of pine land, which was but poor soil; but descending thence, the land became pretty much the same as before.

The Kanhaway 79 poles wide; the intervals on its borders a mile wide and very rich; further up the river a mile and half wide, and full of lofty timber.

He went from the Kanhaway on a west-north-west course or thereabout to the Ohio, and returned up the south-east side of that river by a north-east course by Le Fort's creek; Little Kanhaway, or Buffalo creek; Fishing or Nawmissippi creek; Weeling creek; and the two upper creeks, and thence

thence east and south-east to his old camp on the Monongahela. The borders or intervals on the Ohio a mile, and in some places a mile and half wide; the land rich and good, but the upland in general broken hilly land. He met with coal in some places. He examined the land up the creeks, as these, which we should think great rivers, are called, and found the face of the country the same, rich intervals and good farming land on the uplands. This whole country abounds with game, as bear, elk, deer, turkies, and in one place he killed a black fox.

This country is now settling fast, and will soon be better known.

The triangular tract of land at the head of this great vale, and between the Mississippi, the Ohio, and lake Erie (as that lake is vulgarly called), the country of the Illinois, is the finest spot of earth upon the globe *, swelling with moderate hills, but no mountains, watered by the finest rivers, and of the most delightful climate; the soil, as appears from the woods with which it is clothed, is of the most abundant fruitfulness in vegetation. It abounds with coal; and there are multitudes of salt springs in all parts of it. There are mines of iron, copper, and lead. Wild rye grows here also spontaneously.

“ The pass through the mountains from Pennsylvania, by Shamokin to Onondaga and Oswego, is from my own observations, and well deserves regard †; because I had a pretty good instrument for observing the latitude, and minutely noted all our courses, and am well accustomed to form a judgment of travelling distance. Mr. William Franklin’s journal to Ohio has been my principal help in ascertaining the longitude of the fork of Ohio and Monongahela; but however I must not omit mentioning that the latitude of this fork is laid down from the observation of

* It is plain the Kentucky country was not known at the time this was written.—EDIT.

† As laid down in his map.

colonel Fry, and is at least 10 miles more northerly than I would otherwise have thought it was. The river from hence downward is agreed by all who have gone down it, to be in general pretty straight, nor can its curves be indeed considerable where it is confined in a manner by a chain of little hills, from the last mentioned fork to 10 miles below the falls. Mr. Joseph Dobson gave me an account of the distances from creek to creek as they fall in, and of the islands, rifts, and falls all the way from the fork to Scioto; and Mr. Alexander Maginty and Mr. Alexander Lowry gave me the rest to the falls, as well as confirmed the others. The river from the fork upwards is mostly from Mr. John Davison; but that part from Canawagy to the head is entirely by guess, for I have no other information of it, than that it heads with the Cayuga branch of Susquehanna. The routes across the country, as well as the situation of indian villages, trading-places, the creeks that fall into lake Erie, and other affairs relating to Ohio and its branches, are from a great number of informations of traders and others, and especially of a very intelligent Indian called the Eagle, who had a good notion of distances, bearings, and delineating." Indeed all the Indians have this knowledge to a very great degree of practical purpose. They are very attentive to the positions of the sun and stars, and on their lakes can steer their course by them. The different aspects which the hills exhibit on the north side, from that which the south has impressed on their eyes, suggest, habitually, at the moment, in every spot, an almost intuitive knowledge of the quarters of the heavens which we mechanically mark by the compass. This, at the first blush, may appear incredible to some; but it may be explained even to the most incredulous*. Can any, the most inat-

* Every woodman or wood-feller in England will point out the cardinal points at the bare inspection of any tree in the middle of a forest or grove, even if he be brought into it blindfolded.—EDIT.

tentive observer, be at a loss to pronounce, in a moment, which is the north or south side of any building in the country? The same difference between the south or north aspect of a mountain or hill, or even a tree, is equally striking to the attention of an Indian; and is much more strongly marked by that accuracy with which he views these objects; he sees it instantly, and has, from habit, this impression continually on his mind's eye, and will mark his courses as he runs, more readily than most travellers who steer by the compass. The ranges of the mountains, the courses of the rivers, the bearings of the peaks, the knobs and gaps in the mountains, are all land-marks, and picture the face of the country on his mind. The habit of travelling marks to him the distances; and he will express accurately from these distinct impressions, by drawing on the sand a map which would shame many a thing called a survey. When I have been among them at Albany, and inquiring of them about the country, I have sat and seen them draw such *. "The situation of Detroit is chiefly determined by the computation of its distance from Fort Niagara by Mr. Maginty, and its bearing and distance from the mouth of Sandusky.

"I must not omit my acknowledgment," says Mr. Evans, "to Mr. William West for several valuable notes about Potowmac, the forks of Ohio, and parts adjacent; nor to Richard Peters, esq. for the great cheerfulness he assisted me with in this composition. As for the branches of Ohio, which head in the new Virginia †, I am particularly obliged to Dr. Thomas Walker, for the intelligence of what names they bear, and what rivers they fall into northward and westward; but this gentleman being on a journey when I happened to see him, had not his notes, whereby he might

* This is a well-known fact.—EDIT.

† So called for distinction sake; that part of Virginia south-east of the Ouasito mountains, and on the branches of Green Briar, New river, and Holston river.

otherwise have rendered those parts more perfect. But the particulars of these, and many other articles relating to the situation of places, I must defer till I deliver an account of the several rivers and creeks, their navigation, portages, and lands thereon.

*A brief Description of the most considerable RIVERS
in the WESTERN DIVISION.*

“THE face of the country, as already represented, determines the nature of the rivers. The flat country (or lower plains) which lies between the falls and the sea, is everywhere interwoven with the most beautiful bays, rivers, and creeks, navigable for all sorts of vessels; and is the reason of so many fine creeks spreading on every side, from the bays of Chesopeak and Delaware: for, as the land has no declivity, the flux and reflux of the sea contribute to so wide extended navigation. All the creeks on Delaware, the verges of the sounds, which extend along the sea-coast, and some creeks in Virginia, and towards the head of Chesopeak on the west side, are bordered with salt marshes, some a mile or two wide. The first settlers of America, for the sake of the grass for the winter support of their cattle, fixing their habitations along these places, being infested with muskitoes and intermitting fevers, gave the foundation for supposing America unhealthy. The rest of Chesopeak bay, and its branches, is almost all a clean, gravelly, steep, dry bank; and, were it not for the scarcity of fresh water in some parts of the eastern shore, would be as pleasant a country as imagination could well represent.

“The isinglass vein already described, though broken at New-York to let the tide through into Hudson’s river, to a far greater distance than any other river on this coast, continues still north-eastward, but with less uniformity, over the west end of Long Island, and the Connecticut shore
appearing

appearing but here and there, by reason of its being overlaid with the ridges which terminate here.

“ Delaware river *, from the head to Cushietunk, though not obstructed with falls, has not been improved to any inland navigation, by reason of the thinness of the settlements that way. From Cushietunk to Trenton falls, are 14 considerable rifts, yet all passable in the long flat boats † used in the navigation of these parts; some carrying 500 or 600 bushels of wheat. The greatest number of the rifts are from Easton downward. And those 14 miles above Easton, another just below Wells’s ferry, and that at Trenton, are the worst. The boats seldom come down but with freshes, especially from the Minnesinks: the freight thence to Philadelphia is 8d. a bushel for wheat, and 3s. a barrel for flour. From the forks, and other places below, 20s. a ton for pig iron, 7d. a bushel for wheat, 2s. 6d. a barrel for flour. This river, above Trenton, has no branches worth mentioning for conveniency of navigation. Legheiwacseïn has not a hundredth part so much water as Delaware has at the mouth of it. This creek takes the general course laid down in the maps. But as Mr. Edward Scull, to whom I am obliged for many observations, has lately laid out some great tracts of land on this creek, and given me an account of it, I shall here deliver a few particulars, in order to settle some public disputes that have been at several times raised about it. From the mouth to the fork the course is S. 70° W. about 12 miles in a straight line, the creek crooked and rapid. There the two branches are nearly of a bigness, the southern one rather the

* Called by the natives Potuxat, and by the Dutch South river, correlative to that at New-York called North river.

† These boats are made like troughs, square above, the heads and sterns sloping a little fore and aft; generally 40 or 50 feet long, 6 or 7 feet wide, and 2 feet 9 inches, or 3 feet deep; and draw 20 or 22 inches water when loaden.

largest.

largest. Half a mile above the fork, the fourth branch, or Wallanpaupack, tumbles about 30 feet perpendicularly; and a little way higher are two other falls, not quite so large. From the fork to the proprietaries tract, it is S. 60 W. 4 or 5 miles, the channel pretty straight. Thence for 10 miles taken in a straight line, the course is S. 56 W. by compass, the stream crooked and very gentle. By the range of the hills, this branch continues much the same direction to its source. The northern branch of Legheiwacfein divides again into two branches, at about a mile and a quarter above the mouth, where each is about large enough to turn an under-shot grist mill. Three quarters of a mile higher is a great pine swamp, through which both branches come. Mr. Scull thinks that these branches, whose general course is about N. W. do not at most extend above 15 miles; and that all the waters this way are confined to the lower side of the great chains of mountains, which extend from about the Station point to Susquehanna about Whioming.

“The west branch of Delaware is but inconsiderable, compared with the north-eastern branch, into which it falls at Easton. Above the Tuscarora hills at Gnadenhutten, it is divided into little creeks, and no part goes north-westward of the Cushietunk mountains. Delaware has no other branches on the west side between the Station point and Easton worth the mentioning, the country being drained by little runs and creeks.

“Schuylkill is a fine branch, up which the tide runs 5 miles above Philadelphia, where there is an impassable fall; and 3 miles higher another not much better. Thence to Reading is a fine gliding current easy set against, as the bottom is gravelly and even; and at seasons not very dry, would furnish 15 or 16 inches water all the way.

“Susquehanna river is navigable with canoes quite from the lakes at the head to the falls at Conewega; nor is there
any

any fall till that 3 miles below Whioming*. A quarter of a mile below Nescopeki is another; both passable up or down with safety. The water thence to Samokin is generally pretty gentle. Thence to Conewega are several troublesome falls, but all passable downward with safety in freshes. Conewega is the only fall which tumbles headlong in this river. Below this are three or four others, which are passable only with freshes. By reason of so many bad falls, this river has not yet any inland navigation; nor is it indeed capable of any from Conewega downwards. Its considerable branches are, Owege, Tohiccon or Cayuga, Senaghse, or west branch, Juniata, Swatara, Conewega, Codorus, and Conestoga. Tohiccon promises well for a good navigation with canoes to the head of Ohio river, as it is a fine large branch, and the stream pretty moderate. The west branch is shallow and rapid, and has scarce a fall worth the mentioning, and not one impassable. It is passable only when the rains raise it; and then to the path leading from Franks-town to Ohio, where a portage of 40 miles makes this way a communication with that river. Juniata, as it is obstructed with short falls, is gentle, and pretty deep in the intermediate places, and may be improved for the carriage of goods almost to Franks-town. Swatara, Conewega, Codorus, and Conestoga, some centuries hence, will, no doubt, be improved to good account.

* This place and the district is now settled by a populous colony, which swarmed and came forth from Connecticut. The people of Connecticut say, that their charter, and the grant of lands under it, was prior to that of Pennsylvania; that the grant of lands to them extended within the latitudes of their grant (except where possessed by other powers at that time) to the South seas. They allow New-York and New-Jersey to have been so possessed at the time of their grant, but say, that their right emerges again at the west boundary of those provinces. Mr. Penn, and the people of Pennsylvania who have taken grants under him, say, that this district is in the very heart of the province Pennsylvania. On this state of claims the two colonies are in actual war, which they have not even remitted against each other here, although united in arms against Great Britain 1775.

“ Chesopeak

“Chesopeak may be justly esteemed the bay of Susquehanna; and as such we may reckon all the creeks and rivers from Potowmac upwards, as so many branches of it. The many portages from the creeks of this bay to those of Delaware, are become already very useful, and in future ages will be more so. And it may also be observed here, that the road at each is extremely level and good; and vessels of different magnitudes easily come up to the portages.

“Large floops can come up to Snow hill on Pokomoke; the portage is 5 miles from thence to Senepuxen sound, where ships may come. If the Marylanders ever intend a direct passage through their own colony to the sea, here an attempt would be most likely to succeed.

“Shallops may go up Nanticoke river, near 20 miles into Delaware colony; the portage from this river to Indian river is 13 miles, and to Broad creek 12.

“Choptank is navigable with shallops to the bridge, about 6 or 7 miles within Delaware colony; and the portage thence to Motherkill is 15 miles.

“From Chester river to Salisbury, on Duck creek, the portage is 13 miles; and from Sassafras there is another portage to the same place 13 miles also.

“From Frederick, on Sassafras, where good ships can come, there is a portage to Cantwell’s bridge, on Apoquinimy, 14 miles.

“From Bohemia, where large flats, or small shallops, can come, there is a portage of 8 miles to Cantwell’s bridge. This is the most frequented of any between the waters of Delaware and Chesopeak. All these creeks, which lead into Delaware, will receive large shallops, but no larger vessels.

“From the head of Elk, where shallops can come, the portage is 12 miles to Christeen bridge; and it is about the same distance to Omelanden point, a fast landing on Delaware river, 3 or 4 miles below Newcastle. This latter
portage

portage has not been occupied since these parts came last under the dominion of the English.

“Potowmac is navigable with large shipping to Alexandria, and for shallops 14 miles more to the falls; the portage thence is 6 miles by a good waggon road. Boats, shaped like those of Delaware, and of something less dimensions, may go up to the north mountain without obstruction, save at the rift, or falls, in the south mountain, which, however, is passable. The river runs through the north mountain without any fall; and from thence to Wills’s creek, there are 3 or 4 rifts passable with canoes, or batteaux, when the water is not very low. The inland navigation by this river is scarce begun; but one may foresee that it will become in time the most important in America, as it is likely to be the sole passage from Ohio to the ocean. The north branch is scarce passable with canoes beyond the Shawane fields, some 3 or 4 miles above Wills’s creek. The portage from this branch to Ohio is yet unsettled, by reason of the bad roads and hills. But as at this time it may be an object of inquiry, some account of the ground will not be unacceptable. From Wills’s creek the ground is very stony for the greater part of the Allegany mountain; but not so much so from the Shawane fields. The mountain, though pretty stony, may have a good waggon road made over it. On the north-west side of this chain of hills, there is all along a great deal of swampy ground, which is a considerable obstruction to a direct passage, but yet manageable by taking some little compass round. From this westward you cross two branches of Youghiogeny: the greater, which is the most westerly, at 3 miles above the joining of the three forks, or Turkey foot. And the three forks are 3 miles above the Laurel hill, through which Youghiogeny precipitates by a great fall of near 30 feet, and continues to run with great rapidity for 2 or 3 miles further. At this time to go from the crossing to Youghiogeny below the falls, they are obliged to go
by

by the meadows, there cross Laurel hill, and return again northward, and by that means take near 30 miles to reach the navigable water of this river; whereas, if a road could be made near the fall, 15 or 20 miles might be saved in the way to Fort du Quesne. There is a good ford through Youghiogeny, and the ground all the way good and sound; and a road may easily be made along it. Laurel hill, though small, is a ridge very hard to cross, by reason of its steepness; but at the meadows is the best pass we know of yet towards Virginia; there a waggon, which would require 4 horses to travel with, may be drawn up by 6. Probably a pass may also be found for wheel carriages to the north of the falls; and if there should, it would much improve the portage between Potowmac and Youghiogeny, and reduce it to 50 miles, whereas it is now but little short of 70. If we have the good fortune of being masters of Ohio, the navigation of Youghiogeny will be of importance; since it is passable with flat-bottomed boats, capable of carrying 4 or 5 tons, from the mouth to the foot of the rift below the falls. A horse path may be conducted in 6 or 7 miles, without much expence, from the great crossing to the head of navigable water. From this to Fort du Quesne you may go down in a day, but it requires at least three to return up the stream."

The following very curious and very interesting account of the communications betwixt the waters of the european present settlements, and the waters of Ohio, I received from lieutenant-governor Mercer, which I give to the reader in his own words:

" During the last war on the Ohio, most of the heavy and bulky commodities were landed at George-town on Potowmac river, and conveyed thence in waggons to Conogochieg, where they were embarked on batteaux and canoes, and were landed at Fort Cumberland; from Fort Cumberland they were conveyed in waggons to the Monongahela

gahela at the mouth of Redstone creek, and there put on board batteaux, which conveyed them to Pittsburg. The distance from Fort Cumberland to the mouth of Redstone creek is 73 miles, and was generally performed in 3 days: each waggon with 4 horses carried 22 cwt. and were allowed 9s. sterling per day; but it was afterwards known, that a good waggon road might be made from Fort Cumberland on the north branch of the Potowmac to a branch of the Youghiogeny, which would not exceed 40 miles. The troops left in garrison at Pittsburg, after the conclusion of the indian war, received very large supplies of provision, &c. from the inhabitants of the south branch of Potowmac in Virginia, who cleared a waggon road, and found a good pass through the mountains to Cheat river, a branch of the Monongahela, about 50 miles above the mouth of Redstone creek, and found a good and speedy conveyance thence by water to Pittsburg. The distance from the waters of the south branch of the Potowmac to Cheat river is only 20 miles, and colonel Wilson has erected good grist and saw mills on Cheat river: these circumstances are known to all the officers who served in that quarter last war. And since the war, some persons in Virginia, in particular Mr. John Balleneine, who is a good mechanic, has explored these waters, and the several natural advantages they offer; and is of opinion, nay has proved, that for less than 40,000l. locks, &c. might be formed at the falls both of Potowmac and James rivers, which would render those rivers navigable at all seasons of the year for the largest barges now used on the Thames, nay even of barges of 200 tons, as from his general observations of those rivers, particularly of Potowmac, at the falls of which he has remarkable fine mills and a forge, and was also proprietor of a furnace for iron ore near the mouth of the Shannandoah for many years, that they never would have less than 4 feet water in the driest seasons; and, from an actual survey, he assures me that

that the waters of James river, and those of the Kanhaway, are no more than 4 miles distant, and that the waters of the Kanhaway are also navigable, and together with those of the south branch might be made completely so for the expence above mentioned."

Though in search of the head of Potowmac, the king's and lord Fairfax's commissioners determined the north to be the main branch; yet it is very well known, that the south branch is navigable 40 miles up with batteaux. And as it was not clear to me that the true head of Potowmac was at the place those gentlemen determined it, I have not mentioned the western side of Maryland, which should be a meridian drawn from the head of Potowmac to the Pennsylvania line. If the affair is candidly examined, it will probably be determined, that the south branch is the most considerable. If so, the head of the north branch will not be the western extremity of Maryland, though it now is of lord Fairfax's grant. Very hilly and swampy ground prevents a portage by any tolerable road from the south branch to Monongahela. As this latter river is fine and gentle, some use may in future times be made of it, either in a communication with Green Briar, or Potowmac; for it is passable with flats a great way above Redstone creek, and interrupted with one impassable fall only.

Shanedore is a fine branch of Potowmac, but its inland navigation is yet inconsiderable; but, in future time, it will no doubt be improved to a good account.

Rapahannock, York river, Matapany, and Pamunky, though of excellent marine navigation, are but inconsiderable above the lower plains; their branches being confined below the south mountain, and impassable with the slightest inland craft.

James river is scarce inferior to any in excellent navigation for marine as well as inland craft: its lower falls being near 6 miles long, and tumbling in little short cascades, are
entirely

entirely impassable. The river thence upward to an impassable fall in the south mountain is excellently fitted for large boats like those already described in Delaware; and it is passable with lighter craft much further, and would not require above 40 or 50 miles portage to the branches of Kanhaway river. But this however is not improvable to Ohio; for Kanhaway has an impassable fall in a ridge, which is impassable for man or beast by land: but its opening a passage to the New Virginia is a very great advantage.

“Roanoke, which falls into Albemarle sound, beyond the bounds of my map, is barred at the entrance, so as not to receive such large ships as it would otherwise bear: it is passable with shallows to the falls. From thence upwards it is generally placid and wide, and in some places interrupted with little rifts and falls, none of which, that I have heard of, impassable. It is liable to very great freshes, and has not been yet improved to any inland navigation, for the people on its branches, Holston river, Yadkin, and New river, turn hitherto all their commerce into James river. There is no river more likely to be of importance in the future navigation of the inland parts this way than Roanoke, because it hath good depth of water, and extends right into the country.

“There are many other creeks and rivers in the settlements that are obscured by the superior excellence of these already described, which would well deserve description, if I were to give a detail of any particular colony.

“The little acquaintance that the public has had with the river OHIO, will be a sufficient apology for entering into a more minute detail of it, and its branches, than of any other already described.

“From the head, which interlocks with the Cayuga branch of Susquehanna to Canawagy, I have little knowledge; but suppose, from the evenness of the land, that it may afford good inland navigation in future ages. From Canawagy to Chartier's Old Town, the river is all along sufficiently mo-

derate, and always deep enough for canoes and batteaux, which do not draw above 15 inches water; nor is it obstructed with any remarkable rifts or falls, save at a sharp bent some miles below Licking creek, where the water rushes on a rock with great violence; and at Toby's falls, which is a rift passable with safety on the west side. In this part of the river are several fording-places, but they are more rare as you come lower down. That at Chartier's Old Town is the best; which, as soon as the rock appears above water, is passable close above it. At Shanoppens is another in very dry times, and the lowest down the river. This part, which is very crooked, has seldom been navigated by our people, because the great number of horses necessary to carry their goods to Ohio, serve also to carry them there from place to place; and the little game that way makes it but little frequented.

“ The navigation from Chartier's Old Town, all the way down to the falls, has been hitherto performed in very large wooden canoes *, which they make of great length, as better fitted to steer against a rapid stream; they are navigated down by 2 men, and upwards by 4 at least. From Chartier's to the lower Shawane town, they are in the spring about 4 days in going down with the freshes; for then they let the canoe drive in the night; but towards the end of summer, when the water is low, and less swift, they usually spend 10 or 12 days; but at moderate seasons the passage is performed in 6 or 8. In returning, they take often 30 or 40 days, though double-handed, and seldom less than 20. Supposing we go down the river from Chartier's, the water is pretty moderate till you come to Sweep-chimney island, between Dicks's and Pine creek, where it is very rapid. It generally happens that where the river is confined to narrower bounds by islands, it is more rapid, yet not so but

* Generally 30 or 40 feet long, 3 or 4 feet broad, and drawing empty 10 or 12 inches water, and when loaded about 18 inches.

canoes may be easily set against it. At Fort du Quesne, at Paul's island, 5 miles lower, and at a flat between that and Logs Town, the water is pretty rapid, as it is also at a small island between that and Beaver creek. These are, however, inconsiderable; nor are those places just below Beaver creek, and at a flat a little above the upper end of the Pipe hills, much more worthy regard. At Hart's rock the river makes a quick bend round a rocky point, and a very sharp rippling, where the boatmen are obliged to wade, and haul up near the rock, the south-east side being full of quicksands *. At Weeling island, Muskingum island (a little way above a fine branch of that name), and at Beaty's island, the current is pretty rapid. At 3 or 4 miles above the Big bent is a considerable rift called Le Tart's falls, where the water is so rapid, that they are obliged to haul the canoes with ropes, in coming up, for near a furlong along the south-east side. From this to the lower Shawane town, at the mouth of Scioto, is no obstruction worth mentioning." The Ohio, as I learn from captain Gordon's journal of 1766, from 50 miles above Muskingum to the north of Scioto, is most beautiful, and interspersed with numbers of islands covered with the most stately timber, with several long straight reaches, one of which is 16 miles and an half long: "and the stream thence downward to the falls is still more gentle, and better fitted for vessels drawing greater depth of water." These falls do not deserve that name, as I am taught by captain Gordon's journal, as the stream on the north side has no sudden pitch, but only runs rapid over the ledge of a flat limestone rock: several boats passed it in the driest season of the year, unloading one-third of their freight; they passed on the north side, where the carrying-place is three quarters of a mile long. On the south-east side it is

* Above this there are two remarkable creeks, called by the traders the Two Upper creeks, which like twins run about 30 miles parallel to each other, and within 3 miles distance, with a very rich Mesopotamia between them.

about half that distance, and is reckoned the safest passage for those who are unacquainted ; but it is the most tedious, as during part of the summer and fall, they drag their boats over the flat rock. " The fall is about half a mile rapid water, which, however, is passable, by wading and dragging the canoe against the stream when lowest ; and with still greater ease when the water is raised a little.

" The soil along these parts of Ohio, and its eastern branches, though but little broken with high mountains, is none of the best ; consisting in general of low dry ridges of white oak and chesnut land, with very rich interval low meadow ground. Here and there are spots of fine white pines, and in many places great extents of poor pitch pines. The land, from the back part of the Endless mountains, westward to Ohio, and from Fort du Quesne upward, is of these sorts. The same little broken chain of hills, which borders it here near the river side, continues south-westerly, till it ends at 10 miles below the falls, keeping at some 10 or 15 miles from the general course of the river all the way down."

Captain Gordon's journal gives the following description of this part of the country : From the falls to about 155 miles and three quarters, it is very hilly, the course of the river very winding and narrow, and but very few spots of level land on the sides of the river. The hills are mostly stony and steep ; but from the great herds of buffaloes which we saw on the beaches of the river, and on the islands into which they came, there must be good pasture. After this the ridgy ground ends, the country then grows flat, and the river, whose bed widens, is divided by islands. The navigation is good from the falls ; but where the flat country begins, boats must keep the principal channel, which is on the right hand going down.

" Beaver creek is navigable with canoes only. At Kishkuskus, about 16 miles up, two branches spread opposite ways ; one interlocks with French creek and Cherâge, the other

ether westward with Muskingum and Cayahoga; on this are many salt springs, about 35 miles above the forks; it is canoable about 20 miles farther. The eastern branch is less considerable, and both are very slow, spreading through a very rich level country, full of swamps and ponds, which prevent a good portage that might otherwise be made to Cayahoga; but will, no doubt, in future ages, be fit to open a canal between the waters of Ohio and lake Erie.

“ Muskingum, though so wide extended in its branches, spreads all in most excellent land, abounding in good springs and conveniencies, particularly adapted for settlements remote from marine navigation, as coal, clay, and freestone. In 1748 a coal mine, opposite Lamenshikola mouth, took fire, and kept burning above a twelvemonth, where great quantities are still left. Near the same place is excellent whetstone; and about 8 miles higher up the river is plenty of white and blue clay for glass works and pottery. Though the quantity of good land on Ohio, and its branches, is vastly great, and the conveniencies attending it so likewise; we may esteem that on Muskingum the flower of it all.

“ Hockhocking is passable with batteaux 70 or 80 miles up; it has fine rich land, and vast grassy meadows, high banks, and seldom overflows. It has coals about 15 miles up, and some knowls of freestone.

“ Big Kanhaway falls into Ohio on the south-east side, and is so considerable a branch, that it may, by persons coming up Ohio on that side, be mistaken for the main river. It is slow for 10 miles, to the little broken hills, and the land very rich; as it is for about the same breadth along Ohio, all the way from the Pipe hills to the falls. After 10 miles up Kanhaway, the land is hilly, the water pretty rapid, for 50 or 60 miles further to the falls, to which boats may go. This is a very remarkable fall, not for its great height, but for coming through a mountain now thought impassable for man or beast, and is itself impassable. But no

doubt foot or horse paths will be found when a greater number of people make the search, and under less inconveniences than our travellers are at present. By reason of the difficulty of passing the Ouafoto mountains, I thought them a very natural boundary between Virginia and Ohio in these parts; and for that reason made them the bounds of the different territories, not that there is any difference of right between one side and the other. Louisa, New river, and Green Briar, are fine large branches of Kan-haway; which in future times will be of service for the inland navigation of New Virginia, as they interlock with Monongahela, Potowmac, James river, Roanoke, and the Cuttawa river.

“Totteroy falls into Ohio on the same side, and is passable with boats to the mountains. It is long, and has not many branches, interlocks with Red creek, or Clinch's river (a branch of Cuttawa). It has below the mountains, especially for 15 miles from the mouth, very good land. And here is a visible effect of the difference of climate from the upper parts of Ohio. Here the large reed, or Carolina cane, grows in plenty, even upon the upland, and the severity of the winter does not kill them; so that travellers this way are not obliged to provide any winter support for their horses. And the same holds all the way down Ohio, especially on the south-east side to the falls, and thence on both sides.

“Great Salt Lick creek is remarkable for fine land, plenty of buffaloes, salt springs, white clay, and limestone. Canoes may come up to the crossing of the war path, or something higher, without a fall. The salt springs hurt its water for drinking, but the number of fresh springs near it make sufficient amends.

“Kentucky is larger than the foregoing, has high clay banks, abounds in cane and buffaloes, and has also some very large salt springs. It has no limestone yet discovered,
but

but some other fit for building. Its navigation is interrupted with shoals, but passable with canoes to the gap, where the war path goes through the Ouasfoto mountain. This gap it is necessary to point out, as a very important pass, and it is truly so, by reason of its being the only way passable with horses, from Ohio southward for 300 or 400 miles extent. And if the government has a mind to preserve the country back of Carolina, it should be looked to in time.

“ As we go further down Ohio, the distance from the Ouasfoto mountains to the river becomes more considerable. The land, from the little broken hills to the mountains, is of a middling kind, and consists of different veins and strata; and though everywhere as good as any part of the english settlements, falls far short of that on the other side of Ohio, or between the little hills and the river. These hills are small, and seem only the brink of a rising stage of land, and dividing the rich plains of Ohio from the upland, bordering on the Ouasfoto mountains. They terminate at 10 miles below the falls; indeed a little spur extended from their side is that limestone reach that Ohio ripples over at the falls.

“ Now to return to the other side of Ohio. Scioto is a large gentle river, bordered with rich flats, which it overflows in the spring; spreading then above half a mile in breadth, though when confined to its banks it is scarce a furlong wide*. If it floods early, it scarce retires within its banks in a month, or is fordable in a month or two more. The land is so level, that in the freshes of Ohio the backwater runs 8 miles up. Opposite the mouth of this river is the lower Shawane town, removed from the other side, which was one of the most noted places of english

* The latitude of its mouth $38^{\circ} 22'$. I have marked the error of its being placed too high in the map. Muskingum is in Evans's map placed in its general run much too far to the west; it was in some measure corrected in the subsequent edition.

trade with the Indians. This river, besides vast extents of good land, is furnished with salt on an eastern branch, and red bole on Necunfia Skeintat. The stream is very gentle, and passable with large batteaux a great way up, and with canoes near 200 miles to a portage near the head, where you carry over good ground 4 miles to Sandusky. Sandusky is a considerable river, abounding in level rich land, its stream gentle all the way to the mouth, where it will receive considerable floops. This river is an important pass, and the French have secured it as such; the northern Indians cross the lake here from island to island, land at Sandusky, and go by a direct path to the lower Shawane town, and thence to the gap of Ouafoto, in their way to the Cuttawas country. This will, no doubt, be the way that the French will take from Detroit to Moville, unless the English will be advised to secure it, now that it is in their power.

“ Little Mineami river is too small to be gone far with canoes. It has much fine land, and some salt springs; its high banks, and middling current, prevent its overflowing much the surrounding land.

“ Great Mineami river, Affereniet, or Rocky river, has a very stony channel, a swift stream, but no falls. It has several large branches, passable with canoes a great way; one extending westward towards the Quiaaghtena river; another towards a branch of Mineami river (which runs into lake Erie), to which there is a portage, and a third has a portage to the west branch of Sandusky; besides Mad creek, where the French have lately established themselves. A vein of elevated land, here and there a little stony, which begins in the northern part of the peninsula, between the lakes Erie, Huron, and Michigan, extends across the lake, Mineami river, below the fork, and southward along the Rocky river, to Ohio; and is the reason of this river's being stony, and the grounds rising a little higher than the adjacent

adjacent plains. It is, like all the land on this river, very rich, and would scarce have been perceived, had not the river worn the channel down to the rocks which lie beneath.

“ Quiaaghtena river, called by the French Ouabach, though that is truly the name of its south-eastern branch, is very large, and furnishes a fine navigation; but whether interrupted with rifts or falls, I am not informed, but probably it is not, as the lands round are fine level flats, of vast extent. The western league of Indians, known to themselves by the general name of *WELINIS*, corruptly called by the French Illinois (frequently distinguished by us, according to the several tribes or nations that it consists of; as the Piancashas, Wawiaghtas, Piques, Tawightawis, and Mineamis), are seated from this river to Scioto; and were permitted, about 16 years ago, to settle there by the express leave of the confederates.

“ Into the western end of lake Erie falls Mineami river, a considerable stream, navigable with canoes to the portages, which lead to the Quiaaghtena and Rocky river, interrupted with three considerable rifts below the forks: but however it is an important river, because of the portages it furnishes south-westward.”

I shall close this account of the natural state of the country with some considerations on the nature of its climate.

The two principal circumstances on which singly and combined the nature of the climate of any country depends, are, the nature of the soil, and aspect of the given horizon, as constituted and situated to receive and retain the heat of the sun: and is the nature of the atmosphere which is in the longest continuance of contact with this horizon.

1st. If this globe of earth had one uniform plain surface, the nearer approach to, or greater elongation from the equator which any country had (*cæteris paribus*), the greater or lesser degree of heat its climate would partake of; because the more directly, or more obliquely, that the rays of the sun

sun strike any surface, the greater or the lesser must the reverberation of heat be, as the angle of reflection is more acute or more obtuse: the more or less also will the atmosphere in contact with this land be heated by this reverberation; but as this is not the case of the surface of the earth, a thousand other collateral circumstances interfere with and break this rule. As the surface of the earth is broken with numberless irregularities, wherever the inclination of the given horizon lies different from the general horizon of the globe, it counteracts this general effect: if on the north of the equator it slopes southward, or on the south of the equator slopes northward, so as to extend its general plain nearer at right angles with the rays of the sun than the spheric plain of its latitude would have been, it will receive and retain more heat in proportion than belongs to that latitude. Hence the intense heat of the southern parts of Persia, and of those parts which we call the East Indies. Hence also, principally, though other circumstances may concur in the cause, is the climate of North America hotter than in the same latitudes in Europe. Hence also, in part it happens, that the regions of North America, in the upper stages, are not so liable to heat as those in the lower plains, though in the same latitude. If, on the contrary, the given horizon slopes from the sun's place, the heat in the lower latitudes will be more moderate, which is the case of France and Germany compared with the countries of the same latitude in America, and in the higher latitudes the country will suffer more rigorous cold. This latter is the case of Siberia, the plain of whose horizon being in a high north latitude slopes from the high Tartar plains northward; hence the more than natural rigour of the climate; hence the unfruitful and inhospitable nature of its soil.

2. Some surfaces and some soils (other circumstances remaining alike) are more formed to create a reverberation of heat and to retain it. A sandy soil soon heats, and also retains

tains its heats. A surface uneven and irregular, hills and deep vales, and even that which is broken with mountains (if those be not too high, as explained below), reflecting the rays of the sun a thousand ways, and occasioning them to cross each other constantly in all directions, creates a stronger reverberation of local heat than is found in any extended plain. A country clothed with woods, which shade the earth from the action of the sun, will always (taking in the whole region) be colder than a country cleared of those woods; and the air which lies in contact with it, or passes over it, will be always colder. As these regions become cleared of these woods, are dried and cultured, that part of the climate which depends on this circumstance always meliorates in proportion. This has been found to be the case with Gaul and Germany. This effect was sensibly felt, and very early observed, by some of the first settlers in North America; some of the very earliest written accounts which I have seen relate this circumstance very particularly, and men of observation in that country have in every successive age marked the progress of this melioration.

There is another circumstance, which indeed does not much enter into the case of the climate of North America, but is amongst these general propositions worth notice. It is this:

The longer the portion is of any given period of time, in which the sun shines in any horizon, the hotter in that season will the region of that horizon be. Hence the intense heat of the latter end of summer in Russia.

3. The air or atmosphere can be acted upon by the reverberation of the sun's rays, and be heated only in proportion to its greater density near the earth, and in proportion to the continuity of contact which it hath with the heated parts of the earth. The earth also in proportion to this more continued contact amongst its parts, in the general level of the surface, receives and retains more heat than it does in
the

the higher mountainous discontinued parts above that level. From these two circumstances combined it arises, that in the very high mountains, even under the equator, the cold is intense; and at a certain elevation above the general level of the globe, so rigorous and intense as to put a stop to all vegetation.

The atmosphere will also be heated or chilled according to the nature of the particles which attracted by it are mixed and suspended in it, whether they be aqueous, or whether nitrous or sulphureous salts, and according to the fixation, fermentation, or precipitation of these particles.

The regions covered with great lakes of fresh water, but more especially the region of the main ocean, the component parts of whose mass are in perpetual motion, are in general warmer than, although in hot seasons and climates never so hot as, the body of the land: it retains however a more equable heat, while the heat of the land changes from one degree of heat to an opposite one of cold.

The general currents of the air, and the nature of the vapours which may be mixed with them, must depend greatly on the position which these different portions of the globe have in respect of each other in any region. In summer, and in other seasons when the land is heated, the winds which blow from sea must prevail; in winter, when the land is chilled, and while the sea retains its usual warmth, the wind will blow from land to sea, and more or less violent in proportion to the contrast. The position of these regions in respect to the general currents of the atmosphere and of the ocean, operate greatly in forming the courses of the seasons, and the nature of the climate.

These principles thus laid down and explained, I will proceed to state the facts. The climate of the continent at large, or rather of that portion of North America which is contained within the limits of my map, may be thus stated.

Its seasons are summer, autumn, or what the Americans more expressively call the fall, and winter. The transition from the locking up of all vegetation in winter to the sudden burst of it again to life at the beginning of the summer, excludes that progressive season which in the more moderate climate of Europe we call spring.

The season begins to break soon after the fall of the leaf, and temporary cold rains and fleets of snow fall in November, the north-west winds begin, and towards Christmas winter in all its rigour sets in; the ground is covered with snow, the frost is settled, the sky becomes clear and one continued expanse of azure, with constant sunshine; temporary blasts and storms are at intervals exceptions to this. Towards April the currents of the air begin to change to north, and round to north-east, and the season of hazy, foggy, and rainy squalls from north-east begins towards the latter end of April in some parts, towards the beginning of May in others. The frost breaks up, the snow melts, and within a week or 10 days after, the woods and the orchards are in the full glow of bloom. About the middle of September the mornings and evenings begin to grow cool, and from that time to the beginning of the winter season it is the climate of paradise.

To give a description of the climate of New-England, I shall transcribe that account which Dr. Douglas gives, as he, during a long residence therein, did, with a peculiar scientific attention, observe it. "In New-England generally the falling weather is from north-east to south-east in winter: if the wind is north of east, snow; if south of east, rain. The north-east storms are of the greatest continuance; the south-east are the most violent. A north-west freezing wind backing to the south-west, if reverberated, proves the most intense cold weather. Our great rains are in August about 2 months after the summer solstice; and our great snows about

about 2 months after the winter solstice. In falling weather the further the wind is from the east the finer and drier is the snow; the further south from the east the more humid and fleaky. When the wind gets south of south-east it turns to rain. The winds from west-south-west to north-north-west are dry winds, fit for dry curing of salt fish; further north they are damp and soft, as coming from the ocean; further south are from the hot latitudes, and sunburn the fish. Our intense hot days are with the wind from south to west-south-west; from north to east-north-east our most chilly weather. The dry winds are from west to north-north-west, all other winds vary more or less. From the middle of October begin, and about the middle of April leave off, chamber fires. Our seasons as to temper of the weather may be reckoned as follows: winter, from the winter solstice to the spring equinox; spring, from said equinox to summer solstice; summer, from said summer solstice to winter equinox; and autumn, from thence to winter solstice." I have as above ventured to differ from this division of the doctor's, having divided the seasons into winter, summer, and fall; in his next paragraph he seems to be sensible of this division: "at the end of August the symptoms of approaching winter begin to appear; we call it the fall of the year," as the leaves begin to fall.

Lewis Evans, in a map of Pennsylvania, New-Jersey, and New-York, which he published in 1749, says, "That at Philadelphia, by many years observations, the extremes of the barometer were 28 59, and 30 78. And that by one year's observation, which was not remarkable either for heat or cold, Fahrenheit's pocket thermometer was from 14 to 84."

The courses and the nature of the winds are in this region exactly what from the above principles one might pronounce them to be. In winter generally, and taking the year through for near half the period, the land winds blow, that is, the course of the air is from the colder region of a shaded
uncul-

uncultivated land, to the milder region of the sea: these land winds are the west and north-west winds. These winds are always dry, and in the winter season intensely cold. These land winds in very dry weather are endued with a strong power of attraction, and absorb the vapours of the inland waters of the country, and create, as they approach towards the lower plains, very thick fogs, which intercept the direct rays of light, so that the luminous object of the sun appears as red as blood: there are various other phænomena attendant on this state of refraction. These vapours are greatly heated by the sun, and greatly heat the air; in consequence of this, when these fogs are dissipated, the most intense heat succeeds them: if they last till evening before they are dissipated, they are frequently followed by thunder gusts. As the west and north-west winds are steady and equable, the south-west are unsettled and squally. The north winds are the carriers of fleet, both snow and rain. The north-east, when it takes to blow, as it does at the season between the breaking-up of winter and the commencement of summer, is settled cold, and blows hard, with continued rains; and to the northward, as for example, on the coasts of Nova Scotia, and often on the coast of New-England, when it does not bring rain, it drives in thick and fixed fogs before it. The east winds are warm, but not settled under a fixed characteristic as to wet or dry. The south-east are warm and wet.

I cannot close these observations without transcribing from Lewis Evans's map of Pennsylvania, New-York, and New-Jersey, printed at Philadelphia 1749, the following curious, at that time novel and very curious, philosophic propositions; not only as they point to very ingenious experiments, but as they shew what progress he had made in that singular branch of philosophy, electricity, at a period when even the first philosophers were but empirics in it.

“ All

“ All our storms,” says he, “ begin to leeward; thus a north-east storm will be a day sooner in Virginia than in Boston.

“ Thunder never happens but by the meeting of sea and land clouds; the sea clouds coming, freighted with electricity, and meeting others less so, the equilibrium is restored by snaps of lightning; and the more opposite the winds, and the larger and compacter the clouds, the more dreadful are these shocks: the sea clouds, thus suddenly bereft of that universal element of repellency, contract, and their waters gush down in torrents.”

His philosophy here is not perfectly just, though it contains very shrewd leading theorems, of which, with a true and painful philosophic course of experiments, Dr. Franklin elicited the real truth.

I did intend to have continued this paper with a description of the original indigenous inhabitants,

*Hæc nemora indigenæ fauni nymphæque tenebant,
Genſque virûm truncis et duro robore nati,
Quæis nec mos nec cultus erat, nec jungere tauros
Aut componere opes nôrant, aut parcere parto,
Sed rami atque asper victu venatus alebat.*

I should have inserted a list of the tribes or nations, both in the northern and southern district, marking their dwellings. This part would contain a description of their nature, their system of life, and mode of subsistence, of the progress they have made, and of the point in which they are found as to society, communion, and government; as to their manners in the individual, the family, the tribe; as to the general spirit by which they regulate themselves when considered as a nation. But although I have many materials, and these nearly arranged, yet I cannot at present find either leisure or spirits to undertake this part. On this
head,

head, therefore, I will take the liberty at present to refer the reader, who may be desirous of seeing something on this subject, to those parts of the "Administration of the Colonies" (vol. i. chap. 7.) where these matters are treated of, so far as respects the general subject of that treatise.

THE price of land in the back countries of New-York and Pennsylvania, 1 dollar an acre.

The expence of clearing :

For cutting down the timber, 4 dollars.

For piling and burning, 4 dollars.

One man in 3 weeks will clear and burn an acre of land : he is usually boarded and lodged beside the above price.

An acre of maple and beech land, which is the timber that generally grows on the land, will, when burned, produce 150 bushels of ashes an acre : these sell at the pot-ash works from 6d. to 8d. New-York currency, a bushel, paid in goods. It will require from 150l. to 200l. to set up a pot-ash work, New-York currency.

LETTER VI.

MY DEAR FRIEND,

Kentucky.

IN the œconomy of the creation how wonderfully is the wisdom of Providence displayed ! Some animals are formed with particular stomachs, as in the instance of the camel, which has one adapted to contain water. It is aboriginal in the torrid zone, where the rarefaction of the air is so great, and consequently more subject to drought. In the arctic regions we find the musk buffalo, or goat, clad with long wool, which secures it against inclement cold. Man, the most defenceless, naked, and helpless of all in an infant state, in his maturity is superior in reason ; and thus the faculties of his mind and body unite in making him sovereign of the world. “ Born to destroy the inferior race of animals, he would exhaust all nature, if, by a fecundity superior to his depredations, she did not repair the perpetual havoc he makes. But death is only the minister of life, and destruction is the parent of reproduction.”

The articles of sugar and salt, though not absolutely necessities of life, have become, from habit, so essential, that I doubt if any civilized people would be content to live without them. The extensive climate of this country, I believe, is no where warm enough for the cultivation of the sugar-cane with success ; and to import it would be too expensive by reason of its great weight ; but nature has superseded that necessity in the supply of the sugar maple-tree. It has been long known that sugar could be made from the juice of this tree ; but from the imperfect knowledge of the business of sugar-making, the samples from this liquid were
such

such as promised no great expectations in future experiments: however, the necessity which the people were under of making them, or doing without sugar, proved, that, with care and proper management, it could be made equal to the finest sugars of the West Indies, or Brazil *. Some samples shewn to a sugar-refiner in Philadelphia (which astonished him) produced several instructions in the art, which occasioned immediate success. The people began to treat the sugar-trees more tenderly; and instead of chopping a large gap in their trunk, as had always been the practice, and which was sufficient to destroy a less tender tree, the juice was found to ooze as effectually from an incision made with a screw auger of $\frac{1}{4}$ ths of an inch diameter. But this was the smallest of the improvements. All the means made use of in the West Indies for the perfection of the art were soon ascertained and practised: so that the country is not only equal to supply itself with sugar, but might, with increase of hands, supply the inhabitants of the globe †.

The sugar maple-tree not only grows in the greatest abundance throughout this country within the limits I have mentioned, but it is known to be the hardiest, and the most difficult to destroy, of all the trees in our forests (the beech not excepted), by the planters, who have a method of chopping or girdling the trunks of trees about one foot and a half above the ground, in order to kill them, and thereby they prevent their crops from being shaded.

It is known, that old trees produce the most and the richest juice; and it is also known, trees that have been used for years are better than fresh trees. It is a common remark, that whenever you see a black tree of this sort, it is a sure sign it is a rich one. The blackness proceeds from

* It is very sweet; and, even in its first state of granulation, has, though a peculiar, yet no unpleasing taste.—EDIT.

† From this tree many of the german settlers also make a rich liqueur.—EDIT.

the incisions made in the bark by the pecking of the parrot, and other birds, in the season of the juice rising, which oozing out, dribbles down its sides, and stains the bark, which, in the progression of time, becomes black.

I have mentioned these particulars with a view to prevent your falling into the general error, that the resource of making sugar from the maple will soon be destroyed from the very nature of producing it; believing, as many do, that it is impossible for the tree to be able to bear the annual wounds which are necessary to be made in its trunk, in order to draw off the juice; and that a few years must necessarily extirpate them; now, so far from there being any danger of that, experience has shewn, the longer that they are used in a proper manner, the more plentiful and rich will be their juice to a certain age; which will be in proportion to the life of those trees. No exact estimate can be made of that; but I conclude their decay is not earlier than other trees.

Both in the animal and vegetable world it has been observed, that the existence of life, according to the natural order of things, is in proportion to the period of time required to produce maturity. There are exceptions to this principle, to be sure; as the crane and hawk for instance, which seem to acquire maturity as early as most other birds, and are known to live a century and upwards. However, it is very certain that the life of a sugar maple is as long as an oak, or any other tree.

If there is any analogy between animal and vegetable substances (and which there most certainly is), the increasing plenty and richness of the juice from the use and age of the sugar-tree, will not be thought more extraordinary, than that the quantity of milk is greater and more rich produced from a cow that has been used for years, than from one which has been neglected, or prevented from breeding annually.

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The season of tapping is mostly about the middle of February in Kentucky; but not until the latter end of the month, about Pittsburg, in the remote parts of Pennsylvania, on the head branches of the Susquehanna, and Delaware, and in the state of New-York. Frosty mornings and bright sunshine are necessary to produce copious exsudations. The season continues in this climate about 6 weeks, when the juice is found to be too thin and poor to make sugar; but it is still capable of making molasses, spirits by distillation, vinegar, and an agreeable table beer.

The business of sugar-making is mostly managed by women and boys; the men generally having nothing more to do with it than to tap the trees, prepare the sheds, and different apparatus. So that our agricultural employments are very little obstructed by this business, which produces so important an article for domestic uses. The perfection to which we have brought our sugars has induced many people in the upper parts of the states of New-York and Pennsylvania to make a business of it during the season of the juice running; and considerable quantities have been sent to the markets of Philadelphia and York, not inferior to the best clayed, french, and spanish sugars.

The salt springs that have been found in the single state of Kentucky, under proper management, would be sufficient to produce salt for all the inhabitants which the western country could support. There are at least 12 of those springs between Great Sandy and Cumberland; the principal of which are the upper and lower Blue Licks, on Licking creek; one on the Great Bone creek; one on Drinnon's Lick creek, about a mile and a half from the mouth of the Kentucky; and Bullit's Lick, on Salt river, 20 miles from the Rapids of the Ohio. This spring is the first that was worked in the country. The first essays in this business were also imperfect, which, however, proceeded more from poverty than ignorance. The great principle by which the

saline particles are crystallized, is universally known to be by the evaporation of the humid; and the greater the superficial surface of that evaporation, the more rapidly the crystals will form. But the first settlers could not procure salt pans, and were obliged to use as a substitute the pots and kettles they had brought out for domestic purposes.

Such was the commencement of making salt in this country; which, from its scarcity and high price, in some measure discouraged the settlement of the country. However, the great improvements since that æra have done away all those fears, and salt is now manufactured in plenty, and sold cheap.

The water is by no means so strong as sea water. It requires nearly 400 gallons to make one bushel of salt, which is more by one half than would be wanted of sea water to produce that quantity.

The water is not collected immediately from the spring. An area of from 5 to 10 acres round those springs is found to be impregnated with this mineral, so that by digging wells in any part of that space salt water is discovered. From this circumstance I am of opinion, that by digging pits a body of earth would be found strongly impregnated with salt, from which the saline particles might be more easily separated than from water; and it is certain, that if the water receives its particles of salt from the earth that it passes through, such earth must contain a large proportion of salt, otherwise the strength of the water would not be so considerable. However, it will require some time to determine this matter, as the infancy of our country will not permit us to speculate too largely in experiments that would be attended with heavy expences, were they not to prove successful.

Salt springs have been found in every part of the western country; which has been well explored, and I have no doubt that time will prove every part of it is well supplied with

with them. The manner by which they are mostly found in uninhabited places, is by the large buffalo roads which lead to them. Whenever the ramification of those roads begins to concentre, it is almost an infallible sign that a salt lick is near. Those animals resorting to them throughout the temperate part of the year for the benefit of the salt, make large roads, which leading from the Lick, branch different ways into the country.

We have various other minerals, such as iron (which is the most useful), copper, lead, sulphur, nitre, &c. &c. Iron ore is found in great plenty upon the northern branches of Licking creek, and likewise upon the waters of Green river. A lead mine has been worked many years with considerable profit, which lies in the country of Montgomery, upon the waters of the Great Kanaway. There is another between the Cumberland and Tenasee rivers, said to be very valuable, and its ore more pure than any other which has been discovered in America. But the lead mine on the Mississippi must prove inexhaustible. It extends from the mouth of Rock river more than 100 miles upwards. Besides these, there are several others, some of which lie on the spanish side of the Mississippi, and have been used for years past. Copper mines have been discovered in several places; but the mine on the Wabash is, perhaps, the richest vein of native copper in the bowels of the whole earth; and no doubt will render all the others of little or no value. Sulphur is found in several places in abundance; and nitre is made from earth which is collected from caves and other places to which the wet has not penetrated. The making this salt, in this country, is so common, that many of the settlers manufacture their own gunpowder. This earth is discovered in greater plenty on the waters of Green river, than it is in any other part of Kentucky. But perhaps still farther southward, it will be found in greater plenty. However, it is so common in every part of the

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country,

country, that it might be made a considerable article for exportation. I have heard of black lead mines upon the head waters of the Kentucky, but I have not been able to procure any certain information respecting them. But I should conceive that there can be little doubt, that when the country, and particularly the mountainous parts of it, are well explored, all the useful minerals will be found in abundance.

I have already mentioned the coal mines in the upper parts of the Ohio country; besides which there are great quantities of coal upon the upper branches of the Mississippi. It is particularly favourable that this mineral lies at the heads of our larger rivers, as it can be sent down with the greatest facility; and it is very certain that the great body of it, which the Ohio country alone contains, is equal to answer all the purposes for which it may be wanted throughout this extensive empire.

Though the champaign part of this country has no stone on its surface, yet everywhere limestone is found from 6 to 15 feet below it. Most of the bottoms of our rivulets and streams are paved with this stone. It is very easily calcined, when it becomes excellent lime. It is also convenient for building, by reason of its peculiar smoothness, and the ease with which it may be worked into any form. Besides this stone, which is the most common, every other kind of stone is found that is either useful or ornamental; such as flint, grindstones, and millstones, of a very good quality, which have been reckoned equal to french burrs. There is the greatest plenty of marble upon the banks of the Kentucky, particularly at Leesburg. I have not seen any that has been polished; but judges in that business give us the most flattering ideas of its quality.

Clay is very common in every part of this country which is proper for bricks; and there is a superior kind on the Beech fork of Salt river, which no doubt might be manufactured

factured into good porcelain. Carver has mentioned a clay of this sort that he saw above St. Anthony's falls *. Marble, chalk †, gypsum, and ochres, are found in various parts.

Mr. Jefferson has described the medicinal, inflammable, bituminous, and other springs, very accurately; and as there have been no discoveries or light thrown upon the subject since he wrote, I shall refer you to his book for a particular account of them. Indeed, his account of the natural history of this country is generally to be depended upon, so that it is scarcely possible to make any improvement upon it, until farther discoveries shall have arisen: I therefore confine myself to such objects as he has not taken notice of, and to such as have presented themselves since he wrote, occasionally making some strictures and animadversions upon his opinions and information.

I have observed that the climate of this country is various. But, as climate is frequently different, in the same parallels of latitude, I will endeavour to give you some idea of the difference between the climate on the upper parts of the Ohio, Pennsylvania, and Maryland, of Kentucky and Virginia, and of Cumberland and North Carolina, which lie in nearly the same parallels one with another.

It is well known that the climate upon the Atlantic coast of America is in the extreme of heat and cold, and that it is more variable than when it was first settled by Europeans; but the winters are milder. The extremes proceed no doubt from the immense continent that lies to the north-west, and which is interspersed with fresh-water lakes. The rarefied air of the torrid zone, rushing in currents through the upper regions to the arctic circle, leaves a vacancy for the cold air, which, in supplying its place, causes those fre-

* This you will find mentioned in a note extracted from his book, in the preceding part of this work.

† I never saw any native chalk either in the western country, or in the Atlantic states.—ED:R.

quent chills or variations in the spring and autumn, an alternate frost, rain, and mild weather in winter, which are so common in the middle part of that country. The cold is more steady to the north of Hudson's river; but the power of the sun to the south of 41° , by counteracting the influence of the northern winds, occasions those sudden changes from heat to cold*. Opening the country has greatly

* The following remarks and facts relative to the climate and seasons in America and Europe, are extracted from a late publication of the ingenious Dr. Holyoke, of Salem (Massachusetts). They are altogether new, and must be very interesting, not only to the lovers of science, but to men of common curiosity.

The following table exhibits the mean of greatest heat and cold, by Fahrenheit's thermometer, for 3, 4, and 5 years, in the places mentioned.

	Lat. north.	Mean of gr. heat.	Mean of gr. cold.
	$^{\circ}$	$^{\circ}$	$^{\circ}$
Stockholm -	59 20	83.98	10.19b
Copenhagen	55 40	81.77	2.98a
Berlin -	52 32	89.37	0.62b
Mons - -	50 25	89.15	1.18a
Prague - -	50 4	92. 7	12.77b
Wurtzburg -	49 46	93.87	4. b
Manheim - -	49 27	89. 6	1. 2a
Ratisbon - -	48 56	79. 7	2.42b
Buda - -	47 40	90. 7	4.26a
Geneva - -	46 12	88. 9	10. 2a
Rochelle - -	46 0	90. 5	16.93a
Padua - -	45 22	91. 4	16.93a
Marseilles - -	43 17	89. 6	27. 5a
Rome - -	41 53	85.43	33 46a
Salem in Massa chusetts }	42 31	97. 2	2.42b

These european cities, except Rome, are all north of the latitude of Salem. But in the whole middle region of Europe, which is from 7 to 10 degrees north of Salem, the heat in summer and cold in winter, is, on an average, less than at Salem by a difference of 5, 8, and 10 degrees. Comparing the temperature of the european atmosphere under nearly the same parallel of latitude with Salem, viz. at Rome, Padua, and Marseilles, it is found that the mean of greatest heat in Europe falls short of ours by 8 degrees; and the mean of greatest cold by more than 30 degrees. It is also found by observations made at different times and places, that in

America

greatly tended already to lessen the cold, by consequence of the greater power of the sun upon the earth; and a general culti-

America there falls a greater quantity of rain annually than in Europe; we have notwithstanding more fair weather and fewer cloudy, foggy, and rainy days. The medium quantity of rain that falls yearly in Europe does not exceed 30 inches of water, whereas in America the medium quantity is at least 50 inches.

The mean number of fair days, according to observations made in 20 cities of Europe, amounts only to 64. Several observations in America make the mean number of fair days to be about 130. The mean number of cloudy days in the same cities of Europe (all which are upon the continent) was; in 1785, 113; in America there are about 80 or 90. The number of rainy days in the same cities was, on a mean, 122; the number in America is 85 or 90. These facts seem to prove that the atmosphere of Europe is more humid than that in America; and this may be one cause why the european climate is more temperate under the same parallels of latitude, and less subject to extremes of heat and cold.

The following facts respecting the temperature of our own climate are extremely curious. From observations made at four different hours in the day for 7 years, Dr. Holyoke found that the mercury in Fahrenheit rose to 80° and upwards.

In 1786.	In 1787.	In 1788.	
Days.	Days.	Days.	
June 13.	June 10.	June 5.	
July 11.	July 13.	July 13.	
Aug. 8.	Aug 13.	Aug. 8.	
Sept. 2.	Sept. 2.	Sept. 1.	
Oct. 1.			
<hr/>	<hr/>	<hr/>	
35*.	38.	27.	
In 1789.	In 1790.	In 1791.	In 1792.
Days.	Days.	Days.	Days.
May 1.	May 1.	May 7.	May 7.
June 12.	June 5.	June 15.	June 10.
July 13.	July 14.	July 16.	July 15.
Aug. 11.	Aug. 7.	Aug. 15.	Aug. 10.
Sept. 1.	Sept. 2.	Sept. 1.	Sept. 2.
		Oct. 1.	
<hr/>	<hr/>	<hr/>	<hr/>
38.	29.	55.	44.

* It appears from Mr. Rivenhouse's observations in Philadelphia, that, the summer past, the thermometer was at and above 80°, 26 days in August and 9 in September; which makes 35 days in those two months only. I have not seen any observations for May, June, and July last; but probably the heat was at and above 80°, 80 or 90 days in the whole season: an instance without precedent in America.

cultivation, by producing a warmer atmosphere, through which the north wind passes, must tend to moderate the climate generally upon the Atlantic sea.

The

The thermometer was at and above 90°,

In 1786, 4 days.	1790, 2 days.
1787, 2 do.	1791, 12 do.
1788, 1 do.	1792, 8 do.
1789, 4 do.	

During the same years in winter, the thermometer was at and below 32° the freezing point,

In 1786, 108 days, and below 0. 4 days.	
1787, 111 do. and do. 0. 4 do.	
1788, 108 do. and do. 0. 6 do.	
1789, 105 do. and do. 0. 3 do.	
1790, 119 do. and do. 0. 5 do.	
1791, 111 do. and do. 0. 1 do.	
1792, 102 do. and do. 0. 3 do.	

The mean of the mean temperature of each month during the 7 years is as follows:

Jan.	24.8-tenths.	July	71.
Feb.	25.	August	69.7.
March	36.	Sept.	61.
April	45.	Oct.	49.5.
May	56.8.	Nov.	40.
June	67.	Dec.	27.

Mean temperature of each season.

	Winter.	Spring.	Summer.	Autumn.
1786.	25° 7.	45° 9.	70° 6.	50° 9.
1787.	25.8.	45.7.	68.1.	50.3.
1788.	25.5.	45.2.	68.9.	52.1.
1789.	24.9.	43.9.	70.2.	49.5.
1790.	29.2.	43.6.	67.9.	49.5.
1791.	28.3.	48.6.	71.0.	49.0.
1792.	25.5.	49.4.	68.7.	51.3.

Total mean temperature of each year.

1786.	48° 53	1790.	46° 43.
1787.	47.88.	1791.	48.96.
1788.	47.67.	1792.	48.44.
1789.	47.68.		

Total mean temperature of the 7 years 47.94. As the observations in the morning were not made at sunrise, but at 8 o'clock, Dr. Holyoke supposes a small abatement must be made, and the mean temperature of the 7 years fixed at 47.5.

Mean

The greatest part of Pennsylvania lies between latitude 41° and $39^{\circ} 40'$, and should, from its situation upon the globe, be a very excellent climate; and no doubt in time it will. At present it is too subject to extremes; and by the too frequent and violent bracing, and sudden relaxation of the animal system, the elasticity of the nerves is injured; and thus the marks of age are visible at an earlier period in some parts of America than in others.

Farther southward the cold is less; but as the heat is proportionally greater, the extremes are much the same quite to South Carolina. As you approach the ridge of mountains that run through America from north to south, the inhabitants look more healthy, which is the consequence of the climate being more temperate and steady.

The country on the upper parts of the Ohio, and between Pittsburg and lake Erie, is considerably colder than Pennsylvania and Maryland, which no doubt is occasioned, in a great degree, in the former, from its proximity to the mountains; but in a greater degree in both, from the country around them being a continual forest.

When you arrive in Kentucky you experience a greater temperature of air than in any country in which I ever travelled; Fahrenheit's thermometer seldom falling below 35° deg. in winter, nor rising above 80° in summer*. The

Mean temperature at the time of each observation.

At 8 o'clock A. M.	-	-	-	$46^{\circ} 55'$.
At noon	-	-	-	$54^{\circ} 15'$.
Sun-set	-	-	-	$47^{\circ} 60'$.
At 10 o'clock P. M.	-	-	-	$43^{\circ} 7'$.

Whence it appears that the mean temperature of the day is at sun-set; and that the temperature of the month of April is very little below the mean temperature of the year.

* At the forks of Sandy, in the same situation (viz. a north aspect), the same thermometer at 6 P. M. in the middle of August, that would indicate a heat of 94° of Fahrenheit's scale, would at 6 P. M. in the January following, have the mercury condensed considerably within the bulb. Both observations were made on remarkably still evenings.—EDIT.

approach

approach of the seasons is gradual. The summer continues mostly to the middle of October. The autumn, or mild weather, generally continues until Christmas, when we have some cold and frost until February; when spring approaches; and by the beginning of March several shrubs and trees begin to shoot forth their buds; by the middle of the month, the buck-eye or horse-chestnut is clad in its summer's livery; and by the middle of April the foliage of the forests is completely expanded; which is a fortnight earlier than the leaves are shot in Virginia and Maryland. Cumberland is proportionally more temperate than North Carolina, as Kentucky is to Virginia.

The rarefied air from the southern regions must be more considerable from that tract or space of the globe covered by salt water, than from the countries covered with forests. Now, as almost all America may be considered as one forest, it appears to me that the vacancy occasioned by rarefaction in southern latitudes must be greater in the regions of air, both over the Pacific and Atlantic oceans, than upon the continent; and that the cold air from the polar circle rushes both to the south-east and south-west, and consequently the middle parts of our continent must be less subject to cold and variation, by being more out of the course of the cold winds, than the countries either upon the Atlantic or Pacific sea-coasts.

How far this theory may prove satisfactory, I can form no idea. If it be unphilosophical, I hope you will treat it accordingly; it is the only way that I can account for the very great difference between the climate of this country, and that of Virginia.

Another cause for our greater temperature in summer, is, doubtless, owing to our lying so much higher. It is one continual but gradual rise from Richmond for 200 miles back. There are several risings and fallings afterwards, and several mountains in the wilderness; but I have always
observed

observed that the rise from the east to their summits, was greater than the descent west, to their base, which makes the elevation of Kentucky considerably above that of Virginia. Besides, Kentucky has no marshes or bogs, which are very considerable in the lower parts of Virginia, and the exhaled vapours from them produce deleterious air, which appears hotter than it really is.

Mr. Jefferson's table of average heat and cold for the different months, made from the observations of 5 successive years, though it furnished him with a datum to estimate theoretically the climate of Virginia, can afford you no idea of its temperature. Perhaps, in some of those years, the mercury was below 0 during the winter. But when he has stated the least and greatest daily heat by Fahrenheit's thermometer for January to be from $38\frac{1}{2}^{\circ}$ to 44° , you can have no conception that there can be any frost in Virginia. I do not mean to say that it is common for the mercury to fall below 0 in that country; but I mean to be understood that frost is very frequent there, and that by taking the average of the greatest heat and greatest cold, when the extremes are so great as they are in Virginia, it is impossible for a stranger to form a just idea of its climate. Mr. Jefferson allows that the extremes are very considerable, and that the mercury has been known to descend from 92 deg. to 47 in 13 hours.

A journey to the Illinois will prevent me from writing to you again as soon as I could wish, but I shall ever remain

Yours, &c.

IN addition to what has been said in the note, p. 23, concerning the sugar maple-tree, we shall here gratify the reader by presenting him with an ample detail on that subject, by the same learned and ingenious professor, Dr. Benjamin Rush, in a letter to the american philosophical society.

THE sugar maple-trees are generally found mixed with the beech *, hemlock †, white and water ash ‡, the cucumber-tree §, linden ||, aspen **, butter nut ††, and wild cherry-trees ‡‡. They sometimes appear in groves covering 5 or 6 acres in a body, but they are more commonly interspersed with some or all of the forest trees which have been mentioned. From 30 to 50 trees are generally found upon an acre of ground. They grow chiefly in the richest soils, and frequently in stony ground. Springs of the purest water abound in their neighbourhood. They are, when fully grown, as tall as the white and black oaks, and from 2 to 3 feet in diameter §§. They put forth a beautiful white blossom in the spring, before they shew a single leaf. The colour of the blossom distinguishes them from the acer rubrum, or the common maple, which affords a blossom of a red colour. The wood of the sugar maple-tree is of an inflammable nature, and is preferred upon that account by hunters and surveyors for fire-wood. Its small branches are so much impregnated with sugar, as to afford support to the cattle,

* *Fagus ferruginea.* † *Pinus abies.* ‡ *Fraxinus americana.*
§ *Magnolia acuminata.* || *Tilia americana.* ** *Populus tremula.* †† *Juglans alba (oblonga).* ‡‡ *Prunus virginiana*, of Linnæus.

§§ Baron La Hontan, in his voyage to North America, gives the following account of the maple-tree in Canada. After describing the black cherry-tree, some of which he says are as tall as the loftiest oaks, and as big as a hoghead, he adds, "The maple-tree is much of the same height and bulk. It bears no resemblance to that sort we have in Europe."

horses,

horses, and sheep of the first settlers during the winter, before they are able to cultivate forage for that purpose. Its ashes afford a great quantity of pot-ash, exceeded by few, or perhaps by none of the trees that grow in the woods of the United States.

The tree is supposed to arrive at its full growth in the woods in 20 years.

It is not injured by tapping; on the contrary, the oftener it is tapped, the more syrup is obtained from it. In this respect it follows the law of animal secretion. A single tree has not only survived, but flourished, after 42 tapplings in the same number of years. The effect of a yearly discharge of sap from the tree, in improving and increasing the sap, is demonstrated from the superior excellence of those trees which have been perforated in an hundred places by a small wood-pecker, which feeds upon the sap. The trees, after having been wounded in this way, distil the remains of their juice on the ground, and afterwards acquire a black colour. The sap of these trees is much sweeter to the taste than that which is obtained from trees which have not been previously wounded, and it affords more sugar.

From 23 gallons and 1 quart of sap, procured in 20 hours from only two of these dark-coloured trees, Arthur Noble, esq. of the state of New-York, obtained 4 pounds and 13 ounces of good grained sugar.

A tree of an ordinary size yields in a good season from 20 to 30 gallons of sap, from which are made from 5 to 6 pounds of sugar. To this, there are sometimes remarkable exceptions. Samuel Low, esq. a justice of peace in Montgomery county, in the state of New-York, informed Arthur Noble, esq. that he had made 20 pounds and 1 ounce of sugar, between the 14th and 23d of April, in the year 1789, from a single tree that had been tapped for several successive years before.

From the influence which culture has upon forest and

other trees, it has been supposed, that by transplanting the sugar maple-tree into a garden, or by destroying such other trees as shelter it from the rays of the sun, the quantity of the sap might be increased, and its quality much improved. I have heard of one fact which favours this opinion. A farmer in Northampton county, in the state of Pennsylvania, planted a number of these trees above 20 years ago in his meadow, from 3 gallons of the sap of which he obtains every year a pound of sugar. It was observed formerly, that it required 5 or 6 gallons of the sap of the trees which grow in the woods to produce the same quantity of sugar.

The sap distils from the wood of the tree. Trees which have been cut down in the winter, for the support of the domestic animals of the new settlers, yield a considerable quantity of sap, as soon as their trunks and limbs feel the rays of the sun in the spring of the year.

It is in consequence of the sap of these trees being equally diffused through every part of them, that they live 3 years after they are girdled; that is, after a circular incision is made through the bark, into the substance of the tree, for the purpose of destroying it.

It is remarkable that grass thrives better under this tree, in a meadow, than in situations exposed to the constant action of the sun.

The season for tapping the trees is in February, March, and April, according to the weather which occurs in these months.

Warm days and frosty nights are most favourable to a plentiful discharge of sap*. The quantity obtained in a day

* The influence of the weather, in increasing and lessening the discharge of the sap from trees, is very remarkable.

Dr. Tonge supposed long ago (Philosophical Transactions, No. 68.) that changes in the weather of every kind, might be better ascertained from the discharge of sap from trees, than by weather-glasses. I have seen a journal of the effects of heat, cold, moisture, drought, and thunder, upon the discharges from the sugar-trees, which disposes me to admit Dr. Tonge's opinion.

from

from a tree, is from 5 gallons to a pint, according to the greater or less heat of the air. Mr. Low informed Arthur Noble, esq. that he obtained near 23 gallons of sap, in one day (April 14, 1789), from the single tree which was before mentioned. Such instances of a profusion of sap, in single trees, are however not very common.

There is always a suspension of the discharge of sap in the night, if a frost succeed a warm day. The perforation in the tree is made with an axe or an augre. The latter is preferred from experience of its advantages. The augre is introduced about $\frac{3}{4}$ of an inch, and in an ascending direction (that the sap may not be frozen in a slow current in the mornings or evenings), and is afterwards deepened gradually to the extent of 2 inches. A spout is introduced about half an inch into the hole made by this augre, and projects from 3 to 12 inches from the tree. The spout is generally made of the shumach * or elder †, which generally grow in the neighbourhood of the sugar-trees. The tree is first tapped on the south side; when the discharge of its sap begins to lessen, an opening is made on its north side, from which an increased discharge takes place. The sap flows from 4 to 6 weeks, according to the temperature of the weather. Troughs large enough to contain 3 or 4 gallons, made of white pine, or white ash, or of dried water ash, aspen, linden, poplar ‡, or common maple, are placed under the spout, to receive the sap, which is carried every day to a large receiver, made of either of the trees before mentioned. From this receiver it is conveyed, after being strained, to the boiler.

To preserve the sap from rain, and impurities of all kinds, it is a good practice to cover the troughs with a concave board, with a hole in the middle of it.

It remains yet to be determined, whether some artificial

* *Rhus*. † *Sambucus canadensis*. ‡ *Liriodendrum tulipifera*.

heat may not be applied, so as to increase the quantity and improve the quality of the sap. Mr. Noble informed me, that he saw a tree, under which a farmer had accidentally burnt some brush, which dropped a thick heavy syrup, resembling molasses. This fact may probably lead to something useful hereafter.

During the remaining part of the spring months, as also in the summer, and in the beginning of autumn, the maple-tree yields a thin sap, but not fit for the manufactory of sugar. It affords a pleasant drink in harvest, and has been used instead of rum, in some instances, by those farmers in Connecticut, whose ancestors have left to them, here and there, a sugar maple-tree (probably to shade their cattle), in all their fields. Mr. Bruce describes a drink of the same kind, prepared by the inhabitants of Egypt, by infusing the sugar-cane in water, which he declares to be "the most refreshing drink in the world*."

There are three methods of reducing the sap to sugar.

1. By freezing it. This method has been tried for many years, by Mr. Obadiah Scott, a farmer in Luzerne county,

* Baron La Hontan gives the following account of the sap of the sugar maple-tree, when used as a drink, and of the manner of obtaining it:—The tree yields a sap, which has a much pleasanter taste than the best lemonade or cherry-water, and makes the wholesomest drink in the world. This liquor is drawn by cutting the tree 2 inches deep in the wood, the cut being made sloping to the length of 10 or 12 inches; at the lower end of this gash a knife is thrust into the tree slopingly, so that the water runs along the cut or gash, as through a gutter, and falls upon the knife, which has some vessels placed underneath to receive it. Some trees will yield 5 or 6 bottles of this water in a day; and some inhabitants of Canada might draw 20 hogheads of it in one day, if they would thus cut and notch all the maple-trees of their respective plantations. The gash does no harm to the tree. Of this sap they make sugar and syrup, which is so valuable, that there can be no better remedy for fortifying the stomach—but few of the inhabitants have the patience to make them, for, as common things are slighted, so there are scarce any but children that give themselves the trouble of gashing these trees.

in this state, with great success. He says, that one half of a given quantity of sap reduced in this way, is better than one third of the same quantity reduced by boiling. If the frost should not be intense enough to reduce the sap to the graining point, it may afterwards be exposed to the action of the fire for that purpose.

2. By spontaneous evaporation. The hollow stump of a maple sugar-tree, which had been cut down in the spring, and which was found some time afterwards filled with sugar, first suggested this method of obtaining sugar to our farmers. So many circumstances of cold and dry weather, large and flat vessels, and, above all, so much time, are necessary to obtain sugar, by either of the above methods, that the most general method among our farmers is to obtain it, 3. By *boiling*. For this purpose the following facts, which have been ascertained by many experiments, deserve attention.

1. The sooner the sap is boiled, after it is collected from the tree, the better. It should never be kept longer than 24 hours before it is put over the fire.

2. The larger the vessel in which the sap is boiled, the more sugar is obtained from it.

3. A copper vessel affords a sugar of a fairer colour than an iron vessel.

The sap flows into wooden troughs, from which it is carried and poured into store troughs, or large cisterns, in the shape of a canoe, or large manger, made of white ash, linden, bass-wood, or white pine, from which it is conveyed to the kettle in which it is to be boiled. These cisterns, as well as the kettle, are generally covered by a shed, to defend the sap from the rain. The sugar is improved by straining the sap through a blanket, or cloth, either before or after it is half boiled. Butter, hogs lard, or tallow, are added to the sap in the kettle, to prevent its boiling over; and lime, eggs, or new milk, are mixed with it, in order to clarify it. I have seen clear sugar made without

the addition of either of them. A spoonful of flacked lime, the white of one egg, and a pint of new milk, are the usual proportions of these articles, which are mixed with 15 gallons of sap. In some samples which I have lately seen, of maple-sugar clarified with each of the above articles, that in which milk alone was used, had an evident superiority in point of colour.

The sugar, after being sufficiently boiled, is grained and clayed, and afterwards refined, or converted into loaf sugar. The methods of conducting each of these processes is so nearly the same with those which are used in the manufactory of West India sugar, and are so generally known, that I need not spend any time in describing them.

It has been a subject of inquiry, whether the maple-sugar might not be improved in its quality, and increased in its quantity, by the establishment of boiling-houses in the sugar-maple country, to be conducted by associated labour. From the scattered situation of the trees, the difficulty of carrying the sap to a great distance, and from the many expences which must accrue from supporting labourers and horses in the woods in a season of the year in which nature affords no sustenance to man or beast, I am disposed to believe that the most productive method, both in quantity and profit, of obtaining this sugar, will be by the labour of private families. For a great number of years many hundred private families in New-York and Pennsylvania have supplied themselves plentifully with this sugar during the whole year. I have heard of many families who have made from 2 to 400 pounds in a year; and of one man who sold 600 pounds, all made by his own hands in one season*.

Not

* The following receipt published by William Cooper, esq. in the Albany Gazette, fully establishes this fact:

“Received, Cooper’s town, April 30th, 1790, of William Cooper, 16 pounds, for 640 pounds of sugar, made with my own hands, without any assistance, in less than 4 weeks, besides attending

Not more knowledge is necessary for making this sugar than soap, cider, beer, four krout, &c. and yet one, or all of these, are made in most of the farm-houses of the United States. The kettles, and other utensils of a farmer's kitchen, will serve most of the purposes of making sugar; and the time required for the labour (if it deserves that name) is at a season when it is impossible for the farmer to employ himself in any species of agriculture. His wife, and all his children above ten years of age, moreover may assist him in this business, for the profit of the weakest of them is nearly equal to that of a man when hired for that purpose.

A comparative view of this sugar has been frequently made with the sugar which is obtained from the West India sugar-cane, with respect to its quality, price, and the possible or probable quantity that can be made of it in the United States; each of which I shall consider in order.

1. The quality of this sugar is necessarily better than that which is made in the West Indies. It is prepared in a season when not a single insect exists to feed upon it, or to mix its excrements with it, and before a particle of dust, or of the pollen of plants, can float in the air. The same observation cannot be applied to the West India sugar. The insects and worms which prey upon it, and of course mix with it, compose a page in a nomenclature of natural history. I shall say nothing of the hands which are employed in making sugar in the West Indies, but that men who work for the exclusive benefit of others, are not under the same obligations to keep their persons clean while they are employed in this work, that men, women, and
ing to the other business of my farm, as providing fire-wood, taking care of the cattle, &c.—John Nicholls—Witness, R. Smith.”

A single family, consisting of a man and his two sons, on the maple-sugar lands, between the Delaware and Susquehanna, made 1800 lbs. of maple-sugar in one season.

children are, who work exclusively for the benefit of themselves, and who have been educated in the habits of cleanliness. The superior purity of the maple-sugar is farther proved by its leaving a less sediment when dissolved in water than the West India sugar.

It has been supposed, that the maple-sugar is inferior to the West India sugar in strength. The experiments which led to this opinion, I suspect have been inaccurate, or have been made with maple-sugar prepared in a slovenly manner. I have examined equal quantities by weight, of both the grained and the loaf sugar, in hyson tea, and in coffee, made in every respect equal by the minutest circumstances that could affect the quality or taste of each of them, and could perceive no inferiority in the strength of the maple-sugar. The liquors which decided this question were examined at the same time, by Alexander Hamilton, esq. secretary of the treasury of the United States, Mr. Henry Drinker, and several ladies, who all concurred in the above opinion.

2. Whoever considers that the gift of the sugar maple-trees is from a benevolent Providence, that we have many millions of acres in our country covered with them, that the tree is improved by repeated tappings, and that the sugar is obtained by the frugal labour of a farmer's family, and at the same time considers the labour of cultivating the sugar-cane, the capitals sunk in sugar-works, the first cost of slaves and cattle, the expences of provisions for both of them, and in some instances the additional expence of conveying the sugar to a market, in all the West India islands, will not hesitate in believing, that the maple-sugar may be manufactured much cheaper, and sold at a less price than that which is made in the West Indies.

3. The resources for making a sufficient quantity of this sugar not only for the consumption of the United States, but for exportation, will appear from the following facts.

facts.—There are, in the states of New-York and Pennsylvania alone, at least 10 millions of acres of land, which produce the sugar maple-tree in the proportion of 30 trees to 1 acre. Now, supposing all the persons capable of labour in a family to consist of 3, and each person to attend 150 trees, and each tree to yield 5lb. of sugar in a season, the product of the labour of 60,000 families would be 135,000,000 pounds of sugar; and, allowing the inhabitants of the United States to compose 600,000 families, each of which consumed 200 pounds of sugar in a year, the whole consumption would be 120,000,000 pounds in a year, which would leave a balance of 15,000,000 pounds for exportation. Valuing the sugar at $\frac{6}{100}$ of a dollar per pound, the sum saved to the United States would be 8,000,000 dollars by home consumption, and the sum gained by exportation would be 1,000,000 dollars. The only part of this calculation that will appear improbable is, the number of families supposed to be employed in the manufactory of the sugar; but the difficulty of admitting this supposition will vanish, when we consider, that double that number of families are employed every year in making cider, the trouble, risks, and expences of which are all much greater than those of making maple-sugar.

But the profit of the maple-tree is not confined to its sugar. It affords an agreeable molasses, and an excellent vinegar. The sap which is suitable for these purposes is obtained after the sap which affords the sugar has ceased to flow, so that the manufactories of these different products of the maple-tree, by succeeding, do not interfere with each other. The molasses may be made to compose the basis of a pleasant summer beer. The sap of the maple is moreover capable of affording a spirit; but we hope this precious juice will never be prostituted by our citizens to this ignoble purpose. Should the use of sugar in diet become more general in our country, it may tend to lessen the inclination

or supposed necessity for spirits; for I have observed a relish for sugar in diet to be seldom accompanied by a love for strong drink. It is the sugar which is mixed with tea which makes it so generally disagreeable to drunkards. But a diet consisting of a plentiful mixture of sugar has other advantages to recommend it, which I shall briefly enumerate.

1. Sugar affords the greatest quantity of nourishment in a given quantity of matter of any substance in nature; of course it may be preserved in less room in our houses, and may be consumed in less time, than more bulky and less nourishing aliment. It has this peculiar advantage over most kinds of aliment, that it is not liable to have its nutritious qualities affected by time or the weather; hence it is preferred by the Indians in their excursions from home. They mix a certain quantity of maple-sugar with an equal quantity of indian corn, dried and powdered, in its milky state. This mixture is packed in little baskets, which are frequently wetted in travelling, without injuring the sugar. A few spoonfuls of it, mixed with half a pint of spring water, afford them a pleasant and strengthening meal. From the degrees of strength and nourishment, which are conveyed into animal bodies by a small bulk of sugar, I conceive it might be given to horses with great advantage, when they are used in places or under circumstances which make it difficult or expensive to support them with more bulky or weighty aliment. A pound of sugar with grass or hay, I have been told, has supported the strength and spirits of an horse, during a whole day's labour in one of the West India islands. A larger quantity given alone, has fattened horses and cattle, during the war before last, in Hispaniola, for a period of several months, in which the exportation of sugar, and the importation of grain, were prevented by the want of ships.

2. The plentiful use of sugar in diet is one of the best
prevent-

preventatives that has ever been discovered of the diseases which are produced by worms. Nature seems to have implanted a love for this aliment in all children, as if it were on purpose to defend them from those diseases. I know a gentleman in Philadelphia, who early adopted this opinion, and who, by indulging a large family of children in the use of sugar, has preserved them all from the diseases usually occasioned by worms.

3. Sir John Pringle has remarked, that the plague has never been known in any country where sugar composes a material part of the diet of the inhabitants. I think it probable that the frequency of malignant fevers of all kinds has been lessened by this diet, and that its more general use would defend that class of people who are most subject to malignant fevers from being so often affected by them.

4. In the numerous and frequent disorders of the breast, which occur in all countries where the body is exposed to a variable temperature of weather, sugar affords the basis of many agreeable remedies. It is useful in weakneses, and acrid defluxions upon other parts of the body. Many facts might be adduced in favour of this assertion. I shall mention only one, which from the venerable name of the person, whose case furnished it, cannot fail of commanding attention and credit. Upon my inquiring of Dr. Franklin, at the request of a friend, about a year before he died, whether he had found any relief from the pain of the stone, from the blackberry jam, of which he took large quantities, he told me that he had, but that he believed the medicinal part of the jam resided wholly in the sugar; and as a reason for thinking so, he added, that he often found the same relief by taking about half a pint of a syrup, prepared by boiling a little brown sugar in water, just before he went to bed, that he did from a dose of opium. It has been supposed by some of the early physicians of our country, that the sugar obtained from the maple-tree is more medicinal
than

than that obtained from the West India sugar-cane ; but this opinion I believe is without foundation. It is preferable in its qualities to the West India sugar only from its superior cleanliness.

Cases may occur in which sugar may be required in medicine, or in diet, by persons who refuse to be benefited, even indirectly, by the labour of slaves. In such cases, the innocent maple-sugar will always be preferred *.

It has been said, that sugar injures the teeth ; but this opinion now has so few advocates, that it does not deserve a serious refutation.

To transmit to future generations all the advantages which have been enumerated from the maple-tree, it will be necessary to protect it by law, or by a bounty upon the maple-sugar, from being destroyed by the settlers in the maple country, or to transplant it from the woods, and cultivate it in the old and improved parts of the United States. An orchard consisting of 200 trees, planted upon a common farm, would yield more than the same number of apple-trees, at a distance from a market town. A full-grown tree in the woods yields 5 pounds of sugar a year. If a greater exposure of a tree to the action of the sun has the same effects upon the maple that it has upon other trees, a larger quantity of sugar might reasonably be expected from each tree planted in an orchard. Allowing it to be only 7 pounds, then 200 trees will yield 1400 pounds of sugar ; and deducting 200 from the quantity for the consumption of the family, there will remain for sale 1200 pounds, which at $\frac{6}{90}$ of a dol. per pound will yield an annual

* Dr. Knowles, a physician of worthy character in London, had occasion to recommend a diet to a patient, of which sugar composed a material part. His patient refused to submit to his prescription, and gave as a reason for it, that he had witnessed so much of the oppression and cruelty which were exercised upon the slaves who made the sugar, that he had made a vow never to taste the product of their misery as long as he lived.

profit

profit to the farmer of 80 dollars. But if it should be found that the shade of the maple does not check the growth of grain any more than it does of grass, double or treble that number of maple-trees may be planted on every farm, and a profit proportioned to the above calculation be derived from them. Should this mode of transplanting the means of obtaining sugar be successful, it will not be a new one. The sugar-cane of the West Indies was brought originally from the East Indies, by the Portuguese, and cultivated at Madeira, from whence it was transplanted, directly or indirectly, to all the sugar islands of the West Indies.

It were to be wished, that the settlers upon the sugar maple lands would spare the sugar-tree in clearing their lands. On a farm of 200 acres of land, according to our former calculation, there are usually 6000 maple-trees. If only 2000 of those original and ancient inhabitants of the woods were suffered to remain, and each tree were to afford only 5 pounds of sugar, the annual profit of such a farm, in sugar alone, at the price formerly mentioned, would amount to 666 dollars, 150 dollars of which would probably more than defray all the expences of making it, and allow a plentiful deduction for family use.

According to the usual annual profit of a sugar maple-tree, each tree is worth to a farmer, 2 dollars and $\frac{2}{3}$ of a dollar; exclusive therefore of the value of his farm, the 2000 sugar maple-trees alone confer a value upon it of 5333 dollars and $\frac{30}{100}$ of a dollar.

It is said that the sugar-trees, when deprived of the shelter and support they derive from other forest trees, are liable to be blown down, occasioned by their growing in a rich, and of course a loose soil. To obviate this, it will only be necessary to cut off some of their branches, so as to alter its centre of gravity, and to allow the high winds to have an easy passage through them. Orchards of sugar maple-trees, which grow with an original exposure of all their

their parts to the action of the sun, will not be liable to this inconvenience.

In contemplating the present opening prospects in human affairs, I am led to expect that a material part of the general happiness which Heaven seems to have prepared for mankind will be derived from the manufactory and general use of maple-sugar; for the benefits which I flatter myself are to result from it, will not be confined to our own country. They will, I hope, extend themselves to the interests of humanity in the West Indies. With this view of the subject of this letter, I cannot help contemplating a sugar maple-tree with a species of affection and even veneration; for I have persuaded myself to behold in it the happy means of rendering the commerce and slavery of our african brethren in the sugar islands as unnecessary, as it has always been inhuman and unjust*.

I shall conclude this letter by wishing that the patronage which you have afforded to the maple-sugar as well as the maple-tree, by your example† may produce an influence in our country as extensive as your reputation for useful science and genuine patriotism.

From, Dear Sir,

Your sincere Friend and obedient Servant,

BENJAMIN RUSH.

P. S. Since writing the above letter, I have procured, through the friendship of Mr. Henry Drinker, a copy of Mr. Botham's account of the method of manufacturing sugar in the East Indies. It is extracted from the report of the

* This letter was written before the account of the war which has lately taken place in Hispaniola between the white people and their slaves, had reached the city of Philadelphia.

† Mr. Jefferson uses no other sugar in his family than that which is obtained from the sugar maple-tree. He has lately planted an orchard of maple-trees on his farm in Virginia.

committee of the british privy council for trade on the subject of the slave trade. I shall insert in this postscript only such parts of it as will throw light upon the method of manufacturing the maple-sugar which has been mentioned, and to show how much it is to be preferred, in point of œconomy, to that which is used in the West Indies.

Extract from the report of the committee of privy council for trade on the subject of the african slave trade, &c. to the king. Part III. No. 3.—Mr. Botham on the mode of cultivating a sugar plantation in the East Indies, &c.

HAVING been for two years in the english and french West indian islands, and since conducted sugar estates in the East Indies, before the abolition of the slave trade was agitated in parliament, it may be desirable to know that sugar of a superior quality and inferior price, to that in our islands, is produced in the East Indies; that the culture of the cane, the manufacture of the sugar and arrack, is, with these material advantages, carried on by free people. China, Bengal, the coast of Malabar, all produce quantities of sugar and spirits; but as the most considerable growth of the cane is carried on near Batavia, I shall explain the improved manner in which sugar estates are there conducted. The proprietor of the estate is generally a wealthy Dutchman, who has erected on it substantial mills, boiling and curing houses. He rents this estate to a Chinese, who resides on it as a superintendant; and this renter (supposing the estate to consist of 300 or more acres) re-lets it to freemen in parcels of 50 or 60, on these conditions:

That they shall plant it in canes, and receive so much per pecul of $133\frac{1}{2}$ lbs. for every pecul of sugar that the canes shall produce.

When crop time comes on, the superintendant collects a sufficient number of persons from the adjacent towns or villages, and takes off his crop as follows:

To any set of tradesmen who bring their carts and buffaloes he agrees to give such a price per pecul to cut all his crop of canes, carry them to the mill, and grind them.

A second, to boil them per pecul.

A third, to clay them and basket them for market per pecul.

So that, by this method of conducting a sugar estate, the renter knows to a certainty what the produce of it will cost him per pecul. He has not any permanent or unnecessary expence; for when the crop is taken off, the taskmen return to their several pursuits in the towns and villages they came from; and there only remain the cane-planters who are preparing the next year's crop. This, like all other complex arts, by being divided into several branches, renders the labour cheaper and the work more perfectly done. Only clayed sugars are made at Batavia: these are in quality equal to the best sort from the West Indies, and are sold so low from the sugar estates as 18 shillings sterling per pecul of 133½ lbs. This is not the selling price to the trader at Batavia, as the government there is arbitrary, and sugar subject to duties imposed at will. The shabander exacts a dollar per pecul on all sugar exported. The price of common labour is from 9d. to 10d. per day. By the method of carrying on the sugar estates, the taskmen gain considerably more than this, not only from working extraordinary hours, but from being considered artists in their several branches. They do not make spirits on the sugar estates. The molasses is sent for sale to Batavia, where one distillery may purchase the produce of an hundred estates. Here is a vast saving and reduction of the price of spirits; not as in the West Indies, a distillery for each estate; many centre in one; and arrack is sold at Batavia from 21 to 25 rix-dollars per leaguer, of 160 gallons; say 8d. per gallon.

The improvement in making the cane into sugar at Batavia
keeps

keeps pace with that in its culture. Evaporation being in proportion to the surface, their boilers are set with as much of it as possible; the cane juice with temper sufficient to throw up its impurities is boiled down to the consistence of a syrup; it is then thrown up into vats calculated to hold one boiling, then sprinkled with 2 buckets of water to subside its foul parts; after standing 6 hours, it is let off by 3 pegs of different heights into a single copper with one fire. It is there tempered again, boiled up and reduced to sugar, by a gentle fire. It granulates, and the sugar-boiler dipping a wand into the copper strikes on the side, then drops the sugar remaining on it into a cup of water, scrapes it up with his thumb-nail, and is by this means able to judge to the utmost nicety of the sugar having its proper degree of boiling. The vats or receivers I mentioned are placed at the left hand of a set of coppers; after running off for boiling all that is clear, the remainder is passed through a strainer, on the outside of the boiling-house; what is fine is put into the copper for sugar; the lees are reserved for distilling.

THE easy and profitable practice of making sugar from the sap or juice of the maple-tree had prevailed for many years in the northern and eastern states. The facility and advantages of this pleasing branch of husbandry had attracted little attention in Pennsylvania, though a few of its inhabitants were in the habit of manufacturing small quantities of this kind of sugar. In the year 1790, it became more generally known to the Pennsylvanians, that their brethren in the eastern and northern parts of the union had long made considerable quantities, with their family utensils, and without the expence of hiring assistance; that the same tree might be carefully tapped without injury for many successive years; that the process was simple and very easy, and

only required to be carried on between the middle of February and the end of March, when the farmer has little to do; and that a very large proportion of the unsettled lands of the state abound with this valuable tree. The great and increasing dislike to negro slavery, and to the african trade, among the people of that state, occasioned this new prospect of obtaining a sugar, not made by the unhappy blacks, to be particularly interesting to them. The following estimate of the capacity of sugar-maple lands of Pennsylvania and New-York to supply the demand of the United States for sugar and molasses, which was founded on the best materials attainable at that time, was published, among other things, to elucidate the subject.

THE DEMAND.

By authentic documents obtained from the custom-house of Philadelphia, it appears, that the medium importation of brown sugar, for each year, from 1785 to 1789, was

	lbs. 5,692,848
Of loaf sugar, on a medium - - -	4,480
And of molasses 543,900 gallons, which at 10 lb. per gallon amount to 5,439,000 lbs. half of which weight in sugar may be con- sidered as equal to 543,900 gallons of molasses - - - - -	2,719,500
Total quantity of sugar required - -	8,416,828

THE CAPACITY OF SUPPLY.

The information of William Cooper, esq. of Cooper's-town, one of the judges of the court of common pleas, in the county of Otsego, and state of New-York, is, that there are usually made from a tree 5 lbs. weight of sugar, and that there are 50 trees on an acre at a medium. But suppose only 4 lbs. to be produced by a tree, and 40 trees on an acre, then

then 52,605 acres will yield 8,416,828 lbs; and supposing the whole demand of the union 42,034,140 lbs. or 5 times the importation into Philadelphia, then 263,000 acres will yield a supply for the United States. It need not be observed, that there are very many more than 263,000 acres of sugar-maple lands in each of the 8 following counties: Albany, Montgomery, Otsego, Tyoga, Ontario, in New-York; Northampton, Luzerne, Northumberland, in Pennsylvania; also, that the sugar-maple-tree is found in many other parts of those two states, and of the United States.

It will be frankly admitted, that the result of the foregoing estimate has a wild and visionary appearance; but, as it is made upon facts very carefully ascertained, and as the whole calculation is exposed to examination, it will not be unreasonable to give some faith to it, until exaggeration of fact or error shall be pointed out.

Philadelphia, 1790.

In the spring of the year 1793, the following letter was received from judge Cooper, and several other persons who had emigrated from Pennsylvania, New-Jersey, and France, into the present county of Otsego, at the heads of the rivers Delaware and Susquehanna, which is distant from Philadelphia about 137 miles, and from the city of New-York about 100 miles, in direct lines.

" GENTLEMEN,

Cooper's-town, April 9, 1793.

" Being convinced that you feel an interest in the manufactory of maple-sugar, and that your wishes and exertions to prevent the destruction of the trees from whence it is produced have been of public utility, we are encouraged to transmit to you the statement we have been able to make from actual observation, of the quantity of sugar which has been made this season in the former township of Otsego, and which was an entire wilderness in 1786. We find, upon a moderate calculation, that there has been made at

least 160,000 lbs. weight; which, at 9d. per lb. is equal in value to 15,000 dollars. This plain demonstration of the importance of this article will, we hope, induce you to continue your endeavours to promote and encourage it; and we would submit to your consideration, whether it is not an object of sufficient consequence to claim the encouragement of the legislature of your state.

To Henry Drinker.

Benjamin Rush.

Tench Coxe.

Philadelphia.

WILLIAM COOPER.

RICHARD R. SMITH.

RENSSEL WILLIAMS, jun.

CHARLES FRANCIS.

LEWIS DE VILLERS.

EBBAL."

Since the publication of the above calculation, it has been ascertained, that the balance of the medium imports and exports of foreign sugar, that is, the consumption of that article in the United States, is about 20,000,000 lbs. weight per annum. The quantity of molasses used in substance, and exclusively of distillation, probably does not exceed 1,500,000 gallons, which may be deemed equal to about half their weight in sugar, or 6,000,000 of lbs. The total sum of these, being the whole consumption of sugar and molasses in substance, is 26,000,000 of lbs. It is certain, that every farmer having 100 acres of sugar-maple land, in a state of ordinary american improvement, that is, one-third covered with judicious reserves of wood and timber, and two-thirds cleared for the culture of grass and grain, can make 1000 lbs. weight of sugar with only his necessary farming and kitchen utensils, if his family consist of a man, a woman, and a child of 10 years, including himself. It would therefore require the attention of 26,000 of such small families, occupying, at 100 acres each, 2,600,000 acres of those lands, to make, at 1000 lbs. each, 26,000,000 of lbs. or a quantity of sugar equal to all the molasses and sugar

sugar annually consumed in substance, in the United States. The operation in a family is as easy as to make household soap or cheese, or to brew ale or beer; and as there is in this country much more than twice the above quantity of sugar-maple lands, in situations not too southern, the only object that requires attention, is to give, as fast as possible, generality to this simple, profitable, and comfortable manufacture.

LETTER VII.

MY DEAR FRIEND,

Kentucky.

IT is natural, I think, that you should expect by this time some account of the inhabitants, their manner of living, the mode of settling the country, the routes, distance, and mode of travelling to it, with some information respecting religion and political sentiments, and the social pleasures of the people; all of which, I am afraid, will require too much time for a letter, and therefore I beg that you will be content to receive the information in the desultory manner I shall be enabled to send it.

In some of my first letters I gave you an account of the first settlement of this country. The perturbed state of that period, and the savage condition of the country, which was one entire wilderness, made the object of the first emigrants that of security and sustenance, and produced the scheme of several families living together in what were called stations. These stations were a kind of quadrangular or sometimes oblong forts, formed by building log-houses connectedly, only leaving openings for gate-ways to pass as they might have occasion. They were generally fixed in a favourable situation for water, and in a body of good land. Frequently

the head of some party of connexions, who had a settlement and pre-emption right, seized upon these opportunities to have his land cleared, which was necessary for the support of the station; for, it was not only prudent to keep close in their forts at times, but it was also necessary to keep their horses and cows up, otherwise the Indians would carry off the horses, and shoot and destroy the cattle.

Under such circumstances, the first settlement of Kentucky was formed, which soon opened a considerable quantity of land in the county of Lincoln, which lies in the upper part of the state, and contiguous to the wilderness that ends in this delectable region.

As the country gained strength, the stations began to break up in that part of the country, and their inhabitants to spread themselves, and settle upon their respective estates. But the embarrassment they were in for most of the conveniences of life, did not admit of their building any other houses but of logs, and of opening fields in the most expeditious way for planting the indian corn; the only grain which was cultivated at that time.

A log-house is very soon erected *, and in consequence of the friendly disposition which exists among those hospitable people, every neighbour flew to the assistance of each other upon occasions of emergency. Sometimes they were built of round logs entirely, covered with rived ash shingles, and the interstices stopped with clay, or lime and sand; to keep out the weather. The next object was to open the land for cultivation. There is very little underwood in any part of this country, so that by cutting up the cane, and girdling the trees, you are sure of a crop of corn. The fertility of the soil amply repays the labourer for his toil; for if the

* A house of this sort may be made as comfortable and elegant as any other kind of building; and is therefore the most convenient, as it may be erected in such a manner as to answer the circumstances of all descriptions of persons.

large trees are not very numerous, and a large proportion of them the sugar-maple, it is very likely, from this imperfect cultivation, that the ground will yield from 50 to 60 bushels of corn to the acre. The second crop will be more ample; and as the shade is removed by cutting the timber away, great part of our land will produce from 70 to 100 bushels of corn from an acre. This extraordinary fertility enables the farmer, who has but a small capital, to increase his wealth in a most rapid manner (I mean by wealth the comforts of life). His cattle and hogs will find sufficient food in the woods, not only for them to subsist upon, but to fatten them. His horses want no provender the greatest part of the year, except cane and wild clover; but he may afford to feed them with corn the second year. His garden, with little attention, produces him all the culinary roots and vegetables necessary for his table; and the prolific increase of his hogs and poultry will furnish him the second year, without fearing to injure his stock, with a plenty of animal food; and in 3 or 4 years his stock of cattle and sheep will prove sufficient to supply him with both beef and mutton; and he may continue his plan at the same time of increasing his stock of those useful animals. By the fourth year, provided he is industrious, he may have his plantation in sufficient good order to build a better house, which he can do either of stone, brick, or a framed wooden building, the principal articles of which will cost him little more than the labour of himself and domestics; and he may readily barter or sell some part of the superfluous productions of his farm, which it will by this time afford, and procure such things as he may stand in need of for the completion of his building. Apples, peaches, pears, &c. &c. he ought to plant when he finds a soil or eligible situation to place them in, as that will not hinder, or in any degree divert, him from the object of his aggrandizement. I have taken no notice of the game he

might kill, as it is more a sacrifice of time to an industrious man than any real advantage.

Such has been the progress of the settlement of this country, from dirty stations or forts, and smoky huts, that it has expanded into fertile fields, blushing orchards, pleasant gardens, luxuriant sugar groves, neat and commodious houses, rising villages, and trading towns. Ten years have produced a difference in the population and comforts of this country, which to be portrayed in just colours would appear marvellous. To have implicit faith or belief that such things have happened, it is first necessary to be (as I have been) a spectator of such events.

Emigrations to this country were mostly from the back parts of Virginia, Maryland, Pennsylvania, and North Carolina, until 1784: in which years many officers, who had served in the American army during the late war, came out with their families; several families came also from England, Philadelphia, New-Jersey, York, and the New-England states. The country soon began to be chequered after that æra with genteel men, which operated both upon the minds and actions of the back woods people, who constituted the first emigrants. A taste for the decorum and elegance of the table was soon cultivated; the pleasures of gardening were considered not only as useful but amusing. These improvements in the comforts of living and manners, awakened a sense of ambition to instruct their youth in useful and accomplished arts. Social pleasures were regarded as the most inestimable of human possessions—the genius of friendship appeared to foster the emanations of virtue; while the cordial regard, and sincere desire of pleasing, produced the most harmonizing effects. Sympathy was regarded as the essence of the human soul, participating of celestial matter, and as a spark engendered to warm our benevolence, and lead to the raptures of love and rational felicity.

With

With such sentiments our amusements flow from the interchange of civilities, and a reciprocal desire of pleasing. That sameness may not cloy, and make us dull, we vary the scene as the nature of circumstances will permit. The opening spring brings with it the prospect of our summer's labour, and the brilliant sun actively warms into life the vegetable world, which blooms and yields a profusion of aromatic odours. A creation of beauty is now a feast of joy, and to look for amusements beyond this genial torrent of sweets, would be a perversion of nature, and a sacrilege against heaven.

The season of sugar-making occupies the women, whose mornings are cheered by the modulated buffoonery of the mocking-bird, the tuneful song of the thrush, and the gaudy plumage of the parroquet.—Festive mirth crowns the evening.—The business of the day being over, the men join the women in the sugar groves, where enchantment seems to dwell.—The lofty trees wave their spreading branches over a green turf, on whose soft down the mildness of the evening invites the neighbouring youth to sportive play; while our rural Nestors, with calculating minds, contemplate the boyish gambols of a growing progeny, they recount the exploits of their early age, and in their enthusiasm forget there are such things as decrepitude and misery. Perhaps a convivial song, or a pleasant narration, closes the scene.

Rational pleasures meliorate the soul; and it is by familiarizing man with uncontaminated felicity, that sordid avarice and vicious habits are to be destroyed.

Gardening and fishing constitute some part of the amusements of both sexes. Flowers and their genera form one of the studies of our ladies; and the embellishment of their houses with those which are known to be salutary, constitutes a part of their employment.—Domestic cares and music fill up the remainder of the day; and social visits, without ceremony or form, leave them without ennui or disgust. Our
young

young men are too gallant to permit the women to have separate amusements ; and thus it is that we find that suavity and politeness of manners universal, which can only be effected by feminine polish.

The autumn and the winter produce not less pleasure. Evening visits mostly end with dancing by the young people, while the more aged indulge their hilarity, or disseminate information in the disquisition of politics, or some useful art or science.

Such are the amusements of this country, which have for their basis hospitality, and all the variety of good things that a luxuriant soil is capable of producing, without the alloy of that distress of misery which is produced from penury or want. Malt liquor, and spirits distilled from corn and the juice of the sugar-tree mixed with water, constitute the ordinary beverage of the country. Wine is too dear to be drank prodigally ; but that is a fortunate circumstance, as it will be an additional spur to us to cultivate the vine.

The routes from the different Atlantic states to this country are various, as may be supposed. From the northern states it is through the upper parts of Pennsylvania to Pittsburg, and then down the river Ohio. The distance from Philadelphia to Pittsburg is nearly 300 miles. From Lancaster about 230. The route through Redstone and by Pittsburg, both from Maryland and Virginia, is the most eligible, provided you have much baggage ; except you go from the southern and back counties of Virginia ; then your best and most expeditious way is through the wilderness. From Baltimore, passing Old Town upon the Potowmac, and by Cumberland fort, Braddock's road, to Redstone old fort on the Monongahala, is about 240 miles ; and from Alexandria to the same place, by Winchester Old Town, and then the same route across the mountain, is about 220 miles. This last must be the most eligible for all Europeans who may wish to travel to this country, as the distance

distance by land is shorter, the roads better, and the accommodations good; *i. e.* they are very good to Old Town, which is 140 miles from Alexandria, and from thence to Redstone comfortable, and plentifully supplied with provisions of all sorts: the road over the mountain is rather rough, but no where in the least difficult to pass.

Travellers or emigrants take different methods of transporting their baggage, goods, or furniture, from the places they may be at to the Ohio, according to circumstances, or their object in coming to the country. For instance, if a man is travelling only for curiosity, or has no family or goods to remove, his best way would be to purchase horses, and take his route through the wilderness; but provided he has a family, or goods of any sort to remove, his best way, then, would be to purchase a waggon and team of horses to carry his property to Redstone old fort, or to Pittsburg, according as he may come from the northern or southern states. A good waggon will cost, at Philadelphia, about 10l. (I shall reckon every thing in sterling money for your greater convenience), and the horses about 12l. each; they would cost something more both at Baltimore and Alexandria. The waggon may be covered with canvass, and, if it is the choice of the people, they may sleep in it at nights with the greatest safety. But if they should dislike that, there are inns of accommodation the whole distance on the different roads. To allow the horses a plenty of hay and corn would cost about 1s. *per diem*, each horse; supposing you purchase your forage in the most economical manner, *i. e.* of the farmers, as you pass along, from time to time as you may want it, and carry it in your waggon; and not of inn-keepers, who must have their profits. The provisions for the family I would purchase in the same manner; and by having 2 or 3 camp kettles, and stopping every evening when the weather is fine upon the brink of some rivulet,
and

and by kindling a fire, they may soon dress their food. There is no impediment to these kind of things, it is common, and may be done with the greatest security; and I would recommend all persons who wish to avoid expence, as much as possible to adopt this plan. True, the charges at inns on those roads are remarkably reasonable; but I have mentioned those particulars, as there are many unfortunate people in the world to whom the saving of every shilling is an object; and as this manner of journeying is so far from being disagreeable, that in a fine season it is extremely pleasant.

Provisions in those countries are very cheap; beef, mutton, and pork, are something less than 2d. per lb; dunghill fowls are from 4d. to 6d. each; duck 8d; geese and turkeys, 1s. 3d. butter, 3d; cheese I will say nothing about, as there is very little good until you arrive in Kentucky. Flour is about 12s. 6d. per cwt.

The best way is to carry their tea and coffee from the place they may set out at; good green tea will be from 4s. 6d. to 6s. per lb; fouchong from 3s. to 5s; coffee will cost from 1s 3d. to 1s. 6d. per lb; loaf sugar from 7½ to 10½d. But I would not recommend their carrying much sugar; for as the back country is approached, the maple-sugar is in abundance, and may be bought from 3d. to 6d. per lb. Such are the expences to be incurred in travelling to this country by Redstone and Pittsburg.

The distance which one of those waggon may travel one day with another is little short of 20 miles. So that it will be a journey from Alexandria to Redstone old fort of 11 or 12 days; from Baltimore a day or two longer; and from Philadelphia to Pittsburg, I should suppose, it would require nearly 20 days, as the roads are not so good as from the two former places.

From these prices the expence of removing a family,
from

from either of the sea-ports I have mentioned, to the Ohio, may be computed with tolerable exactitude *.

The best time for setting out for this country from any of the Atlantic ports, is the latter end of either September or April. The autumn is perhaps the most eligible of the two; as it is most likely that the roads across the mountain will be drier, and provisions and forage are then both more plentiful and cheap than in the spring.

If this mode should not suit the convenience of the party, by reason of their not wanting a waggon or horses when they arrive in this country, they may have their goods brought out to Redstone old fort from Alexandria for 12s. per cwt. and in like proportion from Baltimore and Philadelphia.

At Redstone old fort, or Pittsburg, they can either buy a boat, which will cost them about 5s. per ton, or freight their goods to Kentucky for about 1s. per cwt. There is no regular business of this sort; but as there are always boats coming down the river, 1s. per cwt. is the common charge for freight. But more frequently when there is boat-room to spare, it is given to such as are not able to purchase a boat, or have not a knowledge of the navigation. However, that is a business which requires no skill, and there are always numbers of people coming down, who will readily conduct a boat for the sake of a passage.

The distance from Philadelphia † by land to Kentucky is

* The editor is informed that, by a letter from the Rev. Mr. Toulmin, dated Lexington, February 14, 1795, it appears, that the emigrations to Kentucky the preceding autumn amounted to 14,000 people; that he himself rents a country-house, out-houses, and 30 acres of land (including a peach-garden), for 18l. sterling a year, about 1 mile distant from Lexington.

† The distances in the settled parts only can be computed with any degree of exactitude; but from the best information that can be collected, from the rapids of the Ohio to Santa Fé is about 1000 miles, and from thence to the city of Mexico about 1500.

The computed distance between New Orleans and Mexico is something short of 2000 miles, and about the same to Santa Fé.

between

between 7 and 800 miles; from Baltimore nearly 700; nearly 600 from Alexandria; and upwards of 500 from Richmond. The roads and accommodations are tolerably good to the borders of the wilderness; through which it is hardly possible for a carriage to pass, great part of the way being over high and steep hills, upon the banks of the rivers, and along defiles, which in some places seem to threaten you at every step with danger*. This is the only route the people coming from the upper parts of Virginia and North Carolina can take at present to get into the country; the gap of Cumberland mountain being the only place where it can be passed without the greatest difficulty. The opening the Tenaſee will afford a convenient communication with the Miſſiſſippi. The wilderness, which was formerly 200 miles through, without a single habitation, is reduced from the settlement of Powel's valley to nearly one half of that distance; and it is to be expected that, in a few years more, the remainder of the distance will afford settlements for the accommodation of people travelling that route; when a good road may be made quite to Kentucky. The canals I have spoken of, which are cutting on the Potowmack†, and the removal of the obstructions in Cheat river, will render the passage from Alexandria, or the federal city, to the Ohio, both cheap and easy.

Upon the arrival of emigrants in the country, they generally take a view of that part in which it is their object to settle, and according to their circumstances or calling, fix upon such a situation as may appear eligible for their business. But as the greater proportion of the emigrants who

* This road has been considerably improved, and a post now passes weekly through it from Philadelphia to Kentucky.

† There are two considerable falls in the Potowmack, one about 12 miles above Alexandria, the other nearly 30; and when these canals are completed (which most probably was already done about the latter end of 1793), its navigation will be carried quite into the Allegany mountains.

come to this country are husbandmen, I shall only take notice of their manner of proceeding and settling a farm. Land is to be purchased in every part of the country: the prices are various, according to the improvements there may be upon it, its quality, and local situation; the general price of land, with some improvements, is from 12s. to 15s. per acre. Plantations, with orchards and other improvements, may be purchased from 1l. to 1l. 5s. per acre; good land, without improvements, may be purchased from 1s. 6d. to 8s. per ditto, which price will be according to its rate, or quality and situation.

Remember, I take notice only of the settled country, as I apprehend no European would be hardy enough to form a settlement in a wilderness, which will be left for the Americans, who, no doubt, from habit, are best qualified for that sort of business. Indeed, there is a number of people who have so long been in the custom of removing farther and farther back as the country becomes settled, for the sake of hunting, and what they call range for their cattle, which is that of their feeding upon the natural grass, that they seem unqualified for any other kind of life. This is favourable to the settling a wild and infant country; and no doubt this disposition will last (with some) as long as there is left a wilderness in America. It is, however, certain, this is advantageous to society, which will be bettered, and not injured, by such peculiar habits, so long as they have new countries to people: for this adventurous spirit tends to accelerate the propagation of domestic animals of every sort.

Persons of moderate fortune, upon taking possession of the land they intend to form into a plantation, procure such stock as their circumstances will admit, and the extent of their object requires.

Let us suppose an industrious man already provided with the necessary tools for his agricultural employment, and a
little

little money to buy stock. In such a situation, after building his house in the manner I have mentioned, which will cost him little more than his labour, he should procure some dunghill fowls, a cow, and a breeding sow. The fowls will produce eggs for his family; the cow, milk and butter, if she is well taken care of; and the sow will produce 2, if not 3, litters of pigs within the year. These animals are very prolific in this climate and soil; and it is not a sanguine calculation to suppose the sow will have 8 or 10 pigs at each litter; by which means the family will have pork sufficient for the next year; and the year after they may barter bacon for beef and mutton, which I will conclude their circumstances have not permitted them, as yet, to purchase. His labour will have provided him with corn before this time; and in the extension of his plantation, and the increase of his cow and hogs, his difficulties will be over; and a few years of industry and perseverance will make him a man of property. The increasing ratio of stock is prodigious, where provision for them costs so little as it does here, and where the fertility of the soil is so wonderful. His fowls will cost about 3d. each, his breeding sow about 5 shillings, and his cow, if a very good one, of 4 cwt. and upwards, will cost him from 30 to 40 shillings.

I have hitherto supposed this industrious man not in circumstances to enable him to use horses and plough, but obliged to hoe his corn; the only difficulty of which will be the preparing the ground for the seed. According to this imperfect cultivation, I will conclude that his crop of corn will not be more than 30 bushels to the acre. Now an industrious man making a settlement in the autumn would be able to open 3 acres of land, in the manner I have related, before the time of planting, which will be in April or May; indeed, as late as June will answer; so that he may take advantage of this favourable circumstance, and, by planting at different periods, he will be better enabled to cultivate his crop,

crop, as it will not all require his attendance at the same time. Allowing half an acre for vegetables and pulse, and the yield of his labour will be 75 bushels of corn. Admitting then that he has a wife and 2 children, I will allow one half of this corn for their year's support, which, with the animal food his stock will afford him, and vegetables, will constitute a comfortable living. The other half he may sell, and purchase those artificial necessaries his family may want. The second autumn and winter he may open 2 acres more, and put the other 3 into better condition; one of which should be sown with flax or hemp seed, in order to give employment to his wife, and to provide linen for domestic uses. His crop of corn the second year, with the extended and improved cultivation, will not be short of 125 bushels. The surplus quantity of this year's crop will go a great way towards purchasing a horse and plough; and as the third crop will be more ample, he will then find himself comfortable and independent. I have all along supposed this farmer to have made prompt payment for every thing that he has wanted, which is seldom asked from an industrious man who is anxious to provide for his family. Such a man may not only have credit for horses and cattle, but even for the land; and in a very little time, with industry, he may pay the whole off. I have taken no notice of the taxes he will have to pay; as it is most likely they would not, all together, amount to 5 shillings.

Provisions of every sort are both plenty and cheap in this country. Flour is from 6s. to 9s. per cwt. according to its quality. Indian corn is from 9d. to 1s. per bushel. Beef is from 1½d. to 2d. per lb. Veal, 2½d. per ditto. Mutton, 3d. ditto; which high price is owing to the general desire the farmers have to increase their stocks. Pork is from 2d. to 2½d. per lb. Bacon, from 3½d. to 4d. Bacon hams, from 4d. to 5½d. Salt beef, 2d. Hung or dried
N beef,

beef, 3d. Neat's tongues, 6d. each. Buffalo ditto, which are a most delicious morsel, 9d. Dunghill fowls, ducks, muscovy ditto, geese, turkies, guinea fowls, and pigeons, are proportionally cheap. Butter is from $2\frac{1}{2}$ d. to $3\frac{1}{2}$ d. per lb. Cheese from 2d. to 3d. per ditto.

We have a variety of fish in our rivers ; the most esteemed of which are the perch, trout, buffalo fish, and soft turtle. The perch is in size from 5 to 12 lb. is firm and fat in its season, which is from February until July, and is equal to any salt-water fish I ever tasted. The trout is caught from 8 to 30 lb. weight. This fish is too universally known and admired to require any account of its excellence, particularly as the trout in England is the exact miniature of ours. The buffalo fish is in size from 4 to 8 lb. is a very fine fish, but inferior to the two former. But the soft turtle is, perhaps, the most delicious fish in the world, and amply compensates for our having no other testaceous fish. This turtle is gelatinous, except a small shell upon its back, about the bigness of the palm of the hand. The weight is from 6 to 10 lb.

Most people make their own sugar ; but when it is sold, the price is from 3d. to $4\frac{1}{2}$ d. per lb. according to its fineness. The business of sugar-refining is only commencing, which makes it impossible to say exactly what will be the general price of loaf or refined sugar ; but I conclude it will be proportionally low with raw sugar, as the business can be carried on in this country at less expence than in Philadelphia and York, where the price of the necessaries of life is so much higher. Tea, coffee, chocolate, and spices, are something higher here than in Philadelphia. Good green tea is from 5s. to 8s. per lb. Imperial or gunpowder, 10s. 6d. Pearl and schoulong, from 12s. to 16s. Good fouchong, from 4s. 6d. to 7s. per ditto. Bohea, from 2s. to 3s. 6d. Coffee, from 1s. 9d. to 2s. Chocolate, from 1s. 6d.

to 1s. 8d. Spices are mostly 25 per cent. higher than they are at Philadelphia or Baltimore.

I have entered into several minutiae, in order that you may have a more clear idea of the people and situation of this country. I have not aimed so much at being agreeable, as to convey information.

In a country in the zenith of the perfection of arts, and one just removing the shade of savage wildness, the contrast appears, I know, greater to an European than it really is. We have more of simplicity, and you more of art.—We have more of nature, and you more of the world. Nature formed our features and intellects very much alike; but while you have metamorphosed the one, and contaminated the other, we preserve the natural symbols of both. You have more hypocrisy—we are sincere. You are more cunning and adroit, which your laws and habits have rendered part of your natures. We are not so stupid as not to see through the veil; but when an European does us the honour to visit us, we have both too much hospitality and suavity of manners to inform him he has neither sentiments nor religion. A few years residence with us teaches him that important truth, and self-conviction is always the most lasting.

However, a delineation of the laws, and substance of the opinions, which our new code will contain, will give you a better conception of our moral and political sentiments, and their probable duration, and with hopes that an early opportunity will present itself to forward my letter upon that subject, I shall take my leave of you for the present, my dear friend, with wishing you every possible felicity. Farewell.

I am,

With the utmost regard and esteem,

Yours, &c.

MR. Thomas Cooper, late of Manchester, in answer to questions concerning the state of society in America, and whether european comforts and conveniences can be procured there?—and, whether provisions are cheaper and more plentiful there, than in England? writes as follows:

AMERICA is a large place; and between the different states, there are strong shades of difference; nor does a large town furnish the same answer to your queries as the country.

In Boston, New-York, Philadelphia, and Baltimore, the state of society is much the same as in the large towns of Great Britain, such as Birmingham, Bristol, Liverpool, and Manchester. The american towns I have just enumerated, contain together about the same number of inhabitants as the english towns just mentioned; that is, about 200,000. Boston, in 1791, contained 18,038 inhabitants; New-York, 33,131; Philadelphia, 42,520; Baltimore, 13,503; Richmond, 3,761; Alexandria, 2,748; Lexington, in Kentucky, 834. Since that year the increase has been equivalent to make up the aggregate what I state*. New-York, for instance, is a perfect counterpart of Liverpool: the situation of the docks, the form of streets, the state of the public buildings, the inside as well as the outside of the houses, the manners, the amusements, the mode of living among the expensive part of the inhabitants—all these circumstances are as nearly alike, in the towns last mentioned, as possible. In all the american towns above noticed, there are theatres and assemblies. They are, in short, precisely what the larger and more opulent provincial towns of Great Britain are. Hence also you may easily

* At present Philadelphia contains about 70,000, New-York about 40,000, Lexington 1,500 inhabitants.

conceive, that european comforts and conveniences are not scarce. In fact, you may find in Philadelphia or New-York, every article of that description usually kept in the shops in the english towns I have referred to, in equal plenty, but not indeed equally cheap. To the price of all articles of luxurious furniture (pictures, pier-glasses, carpets, &c.) add one-third to the english price, and you have the full american price. House-rent is also much the same as in the places hitherto compared: if any thing, somewhat dearer in America, for houses of the same size and convenience. The houses, in the one set of towns as in the other, are built of brick and stone. In the country situations of America, houses of equal convenience are as cheap as in the country of Great Britain.

Provisions (milk and butter excepted, at Philadelphia and southward) are a full third cheaper than in similar places of Great Britain. Butter, in Boston and New-York, is cheaper than in Philadelphia, where it is from 15d. to 20d. per lb. Cheese about the same price as with you, but not so good. Firing in the great towns very dear, a cord of hickory wood, 8 feet by 4 feet and 4 feet, selling in Philadelphia and New-York, in winter, at 7 dollars. Remote from the great towns it would be about 1 dollar and a half.

In the settled country, however, from 15 to 250 miles from the large towns, the state of society, and the style of living, is, in my opinion, preferable to the country life of Great Britain.

In the latter kingdom, the people are divided into, first, rich proprietors and great lords, who come occasionally to visit their country seats; secondly, gentlemen farmers, whom inclination, or too strait an income, prevent from living in towns; and thirdly, farming tenantry, who cultivate the ground for a scanty livelihood. In America you have none of the first class: the mass of in-

habitants (exclusive of servants) consists of those who possess in fee simple, from 100 to 500 acres of land, actually in cultivation: together with the tradesmen immediately dependent on agriculture (all of whom are farmers), and the store-keepers dispersed in the smaller towns, almost all of whom are farmers also. But they are all slovenly farmers: their fences are not neat; they have few hedges, and those few are rough and imperfect. The fence in the middle and southern states is usually wood split into lengths, of 5 or 6 feet, and 3 or 4 inches thick, of which the ends are placed one on the top of another, angular-wise. In New-England, stone fences are common. In Pennsylvania, about 20 years ago, there were many hedges of privet, but one severe winter killed them all. They have many indigenous thorny shrubs that would answer for hedges, but they do not give themselves the trouble to try. For gardening they have much less taste than the English; for orchards more. Every farm-house in the middle and southern states has its peach-orchard, and its apple-orchard; and with all their slovenliness, abundance and content are evident in every habitation. These habitations are usually of wood: more generally of logs, cased or uncased with boards, than built of frame-work; all the windows are lashed, and the insides of the houses, generally speaking, are as creditable to the mistress of the family, as the grounds around seem otherwise to the master; whose industry indeed is usually exerted upon more important objects. Neatness, among the common farmers, and taste, among the more opulent cultivators, have not yet found their way.

Hospitality is relative: from Massachusetts to Maryland inns are plenty, and strangers frequent them when they travel: from the south boundary of Pennsylvania to South Carolina, taverns are more scarce and dear, and hospitality is on the most liberal scale. Nor are the people ignorant; newspapers are as plentiful in America as they are now in
France;

France ; book societies are everywhere to be found ; and though learning, in the european acceptation of the word, is uncommon, good sense, and some reading, are universal.

In the country, provisions are from one-third to one-half less than in Great Britain : fish and game are in great plenty.

You ask what appear to me to be the general inducements to people to quit England for America ? In my mind, the first and principal feature is, “ the total absence of anxiety respecting the future success of a family.” There is little fault to find with the government of America, either in principle or in practice : we have very few taxes to pay, and those are of acknowledged necessity, and moderate in amount : we have no animosities concerning religion : it is a subject about which no questions are asked : we have few respecting political men or political measures : the present irritation of men’s minds in Great Britain, and the discordant state of society on political accounts, is not known there. The government is the government *of* the people, and *for* the people. There are no tithes nor game laws : and excise laws upon spirits only, and similar to the british excise only in name. There are no men of great rank, nor many of great riches. Nor have the rich there the power of oppressing the less rich (for poverty, such as in Great Britain, is almost unknown). Nor are their streets crowded with beggars. I saw but one only while I was there, and he was english. You see no where in America the disgusting and melancholy contrast, so common in Europe, of vice, and filth, and rags, and wretchedness, in the immediate neighbourhood of the most wanton extravagance, and the most useless and luxurious parade. Nor are the common people so depraved as in Great Britain. Quarrels are uncommon, and boxing-matches unknown in our streets. We have no military to keep the people in awe. Robberies are very rare. I heard of no burglary

in Philadelphia during the fever there, though no one staid in the town who could afford to leave it. All these are real advantages: but great as they are, they do not weigh with me so much, as the single consideration first mentioned.

In England, the young man flies to prostitution, for fear of the expence of a family establishment, and the more than possible extravagance of a wife; celibacy is a part of prudence, it is openly commended, and as steadily practised, as the voice of nature will allow. The married man, whose passions have been stronger, whose morals have been less callous, or whose interest has furnished motives to matrimony, doubts whether each child be not a misfortune, and looks upon his offspring with a melancholy kind of affection, that embitters some of the most pleasurable moments of life. There are exceptions to this from great success in the pursuits of the father; there are exceptions from stronger degrees of parental affection; and the more sanguine look forward with stronger hope: but I have seen too much not to be satisfied of the perfect truth of this general position. I do not care what may be the situation in life of the parents, or the rank to which they belong; from my own labour, when I lived among you, at 12s. a week, to lord S—, of 25,000l. a year, through many intermediate ranks, I have had too frequent occasion to observe this melancholy fact.

In the former instance, the man I employed consoled himself, with tears in his eyes, for the loss of his eldest son (who was accidentally drowned), because he had one less to provide for; and in the second instance, his lordship laid down his fox-hounds, because he had a large family.

In America, particularly out of the large towns, no man of moderate desires feels anxious about a family. In the country, where dwells the mass of the people, every man feels

feels the increase of his family to be the increase of his riches: and no farther doubts about the facility of providing for his children as comfortably as they have lived, where land is so cheap and so fertile, where society is so much on an equality, and where the prodigious increase of population, from natural and accidental causes, and the improving state of every part of the country, furnishes a market for whatever superfluous produce he chuses to raise, without presenting incessantly that temptation to artificial expence, and extravagant competition, so common and so ruinous in your country.

In Great Britain, perpetual exertion, incessant, unremitting industry, daily deprivation of the comforts of life, and anxious attention to minute frugality, are almost incumbent on a man of moderate fortune, and in the middle class of life: and the probabilities of ultimate success are certainly against a large family. In England, no man has a right (calculating upon the common chances) to expect that 5 or 6 children shall all succeed.

In America it is otherwise: you may reasonably reckon upon a comfortable settlement, according to your situation in life, for every part of a family, however numerous. I declare I know nothing in your country equivalent to the taking off this weight upon the mind of a father of a family. It is felt in the occurrences of every day; and I have seen with pleasure the countenance of an european emigrant, in America, brighten up on this very comfortable reflection; a reflection which consoles even for loss of friends, and exile from a native country.

To persons in genteel life, and of the class which you call men of fortune, nearly the same difficulties occur: with you every rank treads so close on the heels of the rank above it, that an excess of expence above income is general; and perhaps the difficulties of a family are still greater in the class last mentioned. Temptations to unnecessary

necessary expence, owing to the numerous gradations of rank in England, are perpetual, and almost unconquerable. With us, a man is more equitably appreciated: and in the country of America, he is estimated more at what he is, and less at what he seems. Something like european manners, and something of the ill effect of inequality of riches, is to be found in the great towns of America, but nothing like what an inhabitant of the old country experiences; and the mass of the people in America are nearly untainted. Hence the freedom from artificial poverty, and the universal diffusion of the common comforts and conveniences of life.

In your country, moreover, if a man has been pecuniarily unfortunate, the eager crowd press on and trample over him, and once down he is kept down. In America, a false step is not irretrievable; there is room to get up again: and the less unfortunate stumbler looks round at leisure, and without dismay, for some more profitable path to be pursued. With you, every employment is full, and you are pressed and elbowed on all sides: with us, every employment has room for industry, and for many years almost every species of industry must be successful. In fine, ours is a rising country.—I am sorry to say it, but, I fear, yours is a falling country. A single man, with you, may be buoyed up by his unfettered exertions; but a family is a mill-stone about the neck of many, very many, among you, whose anxious industry deserves a better reward.

You ask me what kind of people will find it their interest to go to America? Whether those who have acted as merchants, or shopkeepers, or manufacturers, in England will succeed there? Whether a man of large income can pleasantly spend it? Whether a gentleman of moderate fortune can improve it, or a man of large property increase it there? Whether the american continent holds out in-
ducements

duancements to the professions of law, physic, and divinity? What is a literary man to do there? Or whether a person of a literary turn will easily find society there?

I cannot enter into details on all these inquiries; I have neither all the facts, nor the time, for this purpose. However, the result, the sum and substance of my remarks on these questions, are as follow.—They will perhaps admit of exceptions, but they are generally true.

With respect to merchants, tradesmen, and shopkeepers, they will of necessity have a kind of local apprenticeship to serve, whatever be the previous connexions which induce them to go thither: they must spend time there to acquire a sufficient knowledge of the habits and manners of the people, of the characters and situations of those with whom they are to deal, of the channels of commerce, the articles of barter, and the other details of business, which nothing but actual residence and local investigation can supply. With this, no person of good character and recommendation (with credit on the old country), can fail to succeed in the new. Success, however, will be much accelerated, by a knowledge of german and french, in Pennsylvania and New-York states in particular. In Philadelphia, every storekeeper has the name of his firm, and his trade, written in the german character and language, as well as in the english.

With respect to manufactures, I think no one will as yet succeed in establishing a profitable manufacture of woollen, linen, or of cotton goods (stockings perhaps excepted); neither does it appear to me, that the time is yet come for any branch of the pottery to succeed. There are more profitable means of employing the capital necessary to embark in those manufactures, and there certainly is in this country a predilection, partly founded on prejudice, and partly on interest, in favour of articles manufactured in Great Britain. It is in the power of your country to

keep

keep up this predilection; which the Americans will continue to entertain till your government compels them to relinquish it.

I have no doubt, however, of the success of a glass manufacture, a gunpowder manufacture, of a paper-maker, a paper-stainer, a letter-founder, a manufactory of all the heavy kinds of iron-work, such as castings from the ore, pig-iron, bar-iron, rolling-mills, flitting-mills, and the making of nails. I believe that no soapboiler, hatter, gunsmith, tallow-chandler, whitesmith, and blacksmith, brass-founder, wheel-wright, cabinet-maker, carpenter, mason, bricklayer, taylor, shoemaker, cooper, tanner, currier, maltster, brewer, distiller, sail maker, rope-maker, printer, and bookbinder, whether master or journeyman, can miss of employment there.—Even silversmiths and watch-makers will find the state of society not unfavourable to their trade. Of silversmiths (masters and journeymen), there are reckoned about 400 in Philadelphia alone. I cannot enumerate every trade, but all those of common use are now, and will long continue to be, in demand there. Those I have enumerated, I know to be so at this moment: the wages of journeymen are somewhat higher than with you, and the money of a poor man will certainly go farther.

You ask me, whether a man, of large income, can pleasantly spend it in America? A large income is not so easily spent there, as in Europe; there are not such variety of amusements, nor so expensive amusements; nor does an expensive style of living procure so much respect there, as with you*. I do not think it the place for a man of pleasure, in your acceptance of the word.

Can a man of moderate fortune improve it? Yes, by the purchase and improvement of land, the surest and the easiest way of improving a moderate fortune.

* I could not find, on inquiry, that the most expensive persons in Philadelphia and New-York, lived at an expence beyond 2000l. sterling a year.

Can a man of large fortune increase it? Yes, in the same way—provided he does not purchase at random. Those who buy land on the expectation of re-selling it at an advance of price, must not buy in the thickly settled part of the country; for there land is nearly at the maximum of price it will arrive at for many years: he must not buy large tracts, far from all present settlements, unless he can force the speedy settlement of them by his own connexions and influence. If he can do that, he may buy indeed, any where, using common prudence in chusing the situation: but if he cannot induce an emigration thither by his own exertions, he must buy where the current of population is evidently tending, but where it has not yet reached. Certainly, land speculations in America, prudently entered upon, are extremely profitable: made at random; they are otherwise *. If these do not suit, part of the american stock pays above 6 per cent. per annum, and the deferred stock above 7 †.

The

* Purchasers in this country, and meaning to stay here, will not find it their interest in general, to embark a portion of property so small as not to pay for an agent on the spot. In this case, it should be a joint concern. But so much caution is requisite to persons not going themselves to America, that I cannot recommend the investiture of a fortune there, unless the principal, or some of the principals, act upon personal knowledge.

† The american debt, 16,000,000 sterling, is funded in 3 kinds of stock, viz. the 3 per cent. stock, the 6 per cent. stock, and the deferred stock; this latter bearing no present interest, but interest at 6 per cent. will become payable upon it from and after the 1st of January, 1801.

In the beginning of June 1794, the prices of american stock were, in London,

	Per cent.	l.	s.	d.
6 per cent. stock, 90l. per cent. paying an interest of	6	13	4	
3 per cent. 50l. per cent. paying an interest of	—	6	0	0
Deferred stock 57l. per cent.; upon which, if compound interest be reckoned at 5 per cent. until 1801, the 57l. will amount to 80l. which therefore will yield	7	10	0	
Shares in the american bank, which has hitherto paid 8l. per cent. are at 106l. per cent. paying an interest of	6	15	9	

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The profession of the law is not so different, in any of the states of America, from what it is England, as not to afford a fair chance of success to any lawyer from the old country, who will spend a couple of years in attaining the practice, and the knowledge peculiar to, and necessary for, the particular state in which he wishes to act. The fees are much the same as in England. The reports of cases determined in England, are authority, but are not precedent. They have great weight, and are generally decisive, but they are open to observation, to animadversion, and to contradiction. The law, however, is a fashionable, and therefore a full profession, and I doubt whether an english lawyer will, in general, mend his pecuniary situation by removing there; the lawyers of great practice (who all act as attorneys) get from 500l. to 2000l. currency a year*. German and french, if not absolutely necessary, are very convenient to an american lawyer.

The profession of physic is well filled in America, but there are many foreigners who practise: the profession I believe is open, but (unless in the case of a german or french practitioner among the inhabitants who speak english imperfectly) the american physicians have, and very justly, the preference. Surgeons are not so experienced as with you, nor indeed do surgical cases so frequently occur. The poor are less exposed to accidents and disease, and therefore hospital practice is not so instructive there as in England.

With respect to divinity, I doubt whether individuals of any class of that profession, orthodox or heterodox, would be much in request. If any, those of the arian or focinian persuasion would be so in New-York and Philadelphia: there are many unitarians in the two last-men-

As the surplus revenue is about 1,200,000 dollars (270,000l. sterling) per ann. this is laid out on the principle of a sinking fund, to discharge the debt.

* I believe the profits of none exceed 3000l.

tioned

tioned towns, and in Boston; where I believe there is one congregation, which is the only one of that description I know of in America. Were divines to emigrate, they would probably succeed best as schoolmasters, who are much in request everywhere on the american continent.

With respect to literary men, it is to be observed, that in America there is not as yet what may be called a class of society, to whom that denomination will apply; such, for instance, as is to be found in Great Britain, and indeed in most of the old countries of Europe: a class, whose profession is literature; and among whom the branches of knowledge are divided and subdivided with great minuteness, each individual taking and pursuing his separate department as regularly as the respective fabricators of a watch or a pin. Literature in America is an amusement only—collateral to the occupation of the person who attends (and but occasionally attends) to it. In Europe, it is trade—a means of livelihood. The making of books is there as much a business as the selling of books. No wonder therefore it is better done in Europe than in America; or that, with their usual good sense, the Americans should permit you to be their manufacturers of literature, as well as of crockery or calicoes.

Certainly the Americans are not inferior in abilities to the Europeans; they are comparatively an infant society, and their numbers are comparatively few; and yet, old as Great Britain is in experience, abounding in her establishments for the promotion of learning, pre-eminent in reputation, and gigantic in her attainments of knowledge and science of all kinds, the stripling of the new world has taught you war by Washington, and philosophy by Franklin: Rittenhouse ranks with your mathematicians and astronomers; your diplomatists have shrunk before the reasonings of Jefferson; and the latest and acutest of your political philosophers are more than suspected of being
the

the disciples only of Paine and Barlow, whose knowledge is notoriously the produce of the american school;—but though not in abilities, the Americans are inferior to you in the opportunities of knowledge; their libraries are scanty, their collections are almost entirely of modern books; they do not contain the means of tracing the history of questions: this is a want which the literary people feel very much, and which it will take some years to remedy; but the convulsed state of Europe, and the increasing prosperity of America, will contribute rapidly to improve their situation in this respect.

There is another circumstance also which has hitherto tended to **keep** back the progress of letters with us. The war brought on much individual as well as national poverty; necessity, therefore, as well as the habitual industry and frugality of the people, led every body to attend to commercial pursuits, and their attention was absorbed in the improvement rather of their pockets than of their minds. But ere long, a new generation will arise, and it is rising, who will be enabled by the accumulations of their parents to dispense with the pursuits of business—they will begin to feel the want of employment;—they will imbibe a taste for literature and philosophy;—and the fine arts, and the useful sciences, will find their votaries as numerous and successful in America as in Europe: even at present the literati of the old continent will easily find congenial society in the great towns of America, particularly at Philadelphia.

You ask me how servants are to be procured? In the towns they are not very difficult to be found: the country itself furnishes nearly enough, and the emigrations of all kinds from Germany, from Ireland, from Scotland, and from England, amount to about 10,000 a year; these, together with the liberated blacks, furnish a sufficient supply to the states north of Maryland; south of that state they

they depend on the labour of slaves. The wages of servants of all kinds in these states, may be regarded at about one-fourth dearer than the same classes and descriptions in England. This rule will hold for the country, as well as the town. Few servants are kept for shew, owing to every person being of some ostensible profession. For instance, I know of only one professed "gentleman," i. e. idle, unoccupied, person of fortune in Philadelphia.—Their time is not yet come.

You inquire about the state of politics in America, and the sentiments of the people of that country toward Great Britain.

We have among us about half a dozen suspected royalists, exclusive of some Englishmen settled in the great towns, whom the Americans regard as unreasonably prejudiced against their government, and infected with a kind of *maladie du pays*.

The rest of the Americans are republicans—but of two classes: the one leaning to an extension rather than a limitation of the powers of the legislative and executive government; rather leaning to british than to french politics; inclining to introduce and extend the funding, the manufacturing, and the commercial systems. In this class, rank almost all the executive officers of government, with Mr. Washington at their head; the majority of the members of the senates, and the greatest part of the opulent merchants of the large towns. This party is denominated the federalists, partly because they were the chief introducers and supporters of the present federal government and the constitution of 1787; and partly from the very ingenious series of letters in favour of that constitution, by Mr. Hamilton, termed "The Federalist."

The other party are called anti-federalists; not because they are adverse to a federal government, or wish, like

the French, for a republic, one and indivisible, but in contradistinction rather to the denomination of the other class. The anti-federalists, at the time when the present american constitution was in agitation, were hostile to the extensive powers given to government, and wished for more frequent returns to the people, of the authority they were to delegate to their trustees in office. This party objects to the large salaries given to the officers of government, to the state and distance assumed by some among them, not even excluding the president Washington, whose manners, and mode of living, cold, reserved, and ceremonious (as is said), have tended, in some degree, to counteract the effect of his great abilities and eminent services. The anti-federalists, also, rather lean to the french theory, though not to the french practice, of politics; and they are averse to what they deem the monopolizing spirit, and insulting arrogance, of superiority in your nation. This spirit of animosity against Great Britain has been prodigiously increased by the part your country is supposed to have taken in fomenting the indian war, in exciting the hostilities of the Algerines, in seizing the ships, and obstructing the commerce, of the american merchants, in refusing, or neglecting, to give up the posts upon the lakes, or to make reparation for stolen negroes.—The conduct of your court has certainly given strength to the anti-federal party, among whom may now be ranked the majority of the people, and the majority of the houses of representatives. It is sincerely to be hoped, that some terms of amicable accommodation may speedily be adopted. Perhaps Mr. Jay's being a reputed federalist, will rather assist than obstruct this desired event, under all the circumstances of the two countries.

You will easily conjecture, from the preceding account, that the federalists are the *ins*, and the anti-federalists the

outs, of the american government; and this is, in a great degree, but not universally true. We are more moderate than you are.

You have forgotten to inquire about wine, unless you included it under the head of european comforts and conveniences. The following prices I take from the Philadelphia price current of the 11th January 1794: American porter, in bottles, 8s. 3d. (sterling) per dozen, bottles included—this is about the quality of your provincial porter; London porter, 7s. 4½d. exclusive of bottles; best cogniac brandy, 7s. 4½d. per gallon; arrack, 6s. 3d. per gallon; best Jamaica rum, 5s. 3d. per gallon; Madeira wine, 50l. 17s. per pipe; port wine, 25l. 11s. per pipe; Tene-riffe wine, 3s. per gallon; Lisbon wine, 28l. 7s. per pipe; claret, 26s. per dozen; sherry, best, 5s. 5d. per gallon.

In January 1793, when Great Britain was at peace, the London current price list gave port wine 48l. per pipe; Madeira, 68l; Lisbon, 45l; sherry, 55l. per butt; brandy, 14s. 6d. per gallon; and rum, 5s. 5d. per gallon.

In New-York and Philadelphia, chocolate is sold, retail, at 10d; roasted coffee, 14d; best hyson tea, 6s; best fouchong, 4s. 4d. and 4s. 6d; sugar, double-refined, at 1s. 6d. per lb; lump, 13d. and 14d. At present the cultivation of the vine is much in vogue in Pennsylvania; and good wine has been already made in that state.

You ask me which line of life is, upon the whole, the best for a man of middling fortune to adopt? As a general rule, I have no hesitation in saying, that persons of from 250l. to 5000l. fortune, had better become farmers. I do not know that large fortunes are to be made by farming; but I am sure that a moderate fortune will more certainly, more easily, and more pleasantly, produce a common average profit in that line, than in any other I am acquainted with.

A hundred and fifty acres of land, with a tolerable house and

barn upon it, and sufficient land cleared for a person immediately to begin as a farmer, may be purchased, in many parts, at 4l. currency an acre *, payable one-fifth, perhaps, down, and one-fifth every year, with interest. I doubt whether this is more profitable, than the purchase with the same money of a larger quantity of unimproved land, if the settler choose to encounter the difficulties of the first 12 months, which are difficulties in England only—to Americans they do not appear so much under that form.

The land thus purchased is a species of property that must of necessity receive an annual increase in value, from the natural population of the country, besides that which the industry of the proprietor may confer upon it. I think I speak within compass when I say, that an industrious cultivator, besides making a plentiful livelihood and good interest of his capital, will find his farm quadrupled in value at the end of 10 years, if he bought it in any cheap part of the back country, which was at the time in the course of settling.

To persons with a family, the advantages are much on the side of farming; the value of the produce in America is much higher than in England, when you consider the lightness of the taxes, and the cheapness, and the fertility, of the land. Among farmers, there is not, as in great towns, a perpetual temptation to unnecessary expence, or a style of living above income; and a man who has lived in the ease and plenty of middle life, need not give his son a better or a more certain establishment at setting out in the world, than 500 acres of land, and 500l. to begin with; and this, 10 years hence, will easily be within the compass of men of moderate fortune who begin their american career now.

Nor is the term "farmer" synonymous with the same word in England. With you it means a tenant, holding

* Not quite 50s. sterling.

of some lord, paying much in rent, and much in tithes, and much in taxes: an inferior rank in life, occupied by persons of inferior manners and education. In America a farmer is a land-owner, paying no rent, no tithes, and few taxes, equal in rank to any other rank in the state, having a voice in the appointment of his legislators, and a fair chance, if he deserve it, of becoming one himself. In fact nine-tenths of the legislators of America are farmers.

You ask me what sum is necessary to commence farmer upon a moderate scale, in some civilized, and tolerably well settled part of the back country?

A man may buy 300 acres of rich, but unimproved land, for instance, at present in such a situation, for 30s. per acre, currency, payable by instalments. In the course of a summer, he may, with a couple of men to help him, clear ground enough to maintain some cattle through the winter, and may have a comfortable loghouse built, which he may improve or enlarge at his leisure. To do this, to put one-third of the whole into an arable state, and to pay the first and second instalments, will cost him, with the wages of the men, the keep of himself and a moderate family for a twelvemonth, and the necessary cattle and implements of husbandry to cultivate this quantity properly, about 450l. or 500l. sterling.

You ask me why I prefer the place * I mentioned to you for settling? Because, first, the state of Pennsylvania, for the reasons I have already given, seems, upon the whole, the most eligible of the american states. Secondly, because the place in question is the highest part of the state, therefore the climate is more settled, the air is more clear, and the danger of intermittents and the plague of insects much less (*ceteris paribus*) than in any lower situation. Thirdly,

* This relates to a proposed settlement in Pennsylvania on the Loyalsock creek; and extending between the east and west branches of the Susquehanna, about 40 or 50 miles from Sunbury, and about 170 from Philadelphia.

because the heats of summer are not so intense, nor the alterations of snows and thaws in winter so frequent there, as in the more southerly parts of the state. Fourthly, because, by common consent, the land to be found there is of the best quality to be found in Pennsylvania. Nor have I any doubt but settlers * will be induced to go thither, by the healthy situation of the place fixed on, by the reputed fertility of the land, the society already settling, and about to settle there, by the present cheapness of the land, by the probable rapidity of improvement from the sum appropriated for that purpose, and by the expectation of seeing shortly a good place of education there. It is the only english settlement I know of in America; and although american manners and society approach nearer to english than any other, they are not quite english; and I have no doubt of the inclination of english emigrants bending that way; in fact, I do not know what they can do better, or where upon the whole they can pitch their tents so eligibly.

You ask me whether, in my opinion, the establishment of peace in Europe will not render France a more eligible country than the United States? To this I answer without hesitation, No. Highly as I approve of many alterations in the theory and practice of government adopted by the French, it is impossible for me to approve the ferocious injustice of many of their practices. The vague, loose, declamatory, prejudging style of their accusations; their denial of a full and fair hearing, by authorising the jury (the judges) to decide before the defendant has produced all his evidence; their total disregard to past character and services, to genius and learning; their evident accusations from motives of robbery and plunder, against persons whose only crime appears to be their possession of property; the complete and absolute despotism they have established not only

* The emigrations from the settled to the unsettled parts of America are computed at 40 or 50 thousand annually.

over the words, actions, and writings of men in France, but almost over their very thoughts; amounting to a perfect annihilation of the liberty of the press, and the liberty of speech; their detestable want of private honour, in the breach of confidence between private friends; in their exciting every man to become a spy upon the words and actions of his acquaintance; in their even threatening with punishment wives who should conceal the retreat of their husbands, thus dissolving all the paramount obligations of private life; their unnecessary execution of females for mere political sentiments; their execrable accusation of the unfortunate Antoinette, whose crimes were the crimes of the age and the nation rather than the individual; their whole system of proceeding against female delinquents, without allowing the political rights of females; their present habitual delight in contemplating the executions of their numerous delinquents; their present animosity against the English in particular, which will take some time to wear off; all these circumstances, much as I admire the many great qualities of the french nation, would excite me to shun the society of the present generation of that country. They are a wonderful people; but in my opinion rather to be admired at a distance, than fit for a peaceable man to reside among. It is true they are, according to their own expression, *à la hauteur de leur situation*: but I look for happiness amid the attachments of friends and kindred; where the obligations of private society shall be inviolable; where I may talk folly and be forgiven; where I may differ from my neighbour in politics or religion with impunity; and where I may have time to correct erroneous opinions without the orthodox intervention of the halter or the guillotine. Such times may and will come in France, but I fear not before the present race shall die away.

Even in America, the close of the war was a period extremely unpleasant for a stranger to fix his residence. Vio-

lent political prejudices, impatience of differing opinions, private and personal animosities, ferocious manners, insecurity of rights, individual and national poverty, incessant political contentions, all men dividing into parties, even upon the subdivisions of political questions, injustice in the taxation of emigrants, and all the evils of an unsettled government, were for some time prevalent there. At present little or nothing of this kind is perceived. But the Americans are a much cooler people than the French, and I fear a longer prevalence of these evils among the latter. Moreover, however settled the state of France might be, however excellent its government, and amiable as well as admirable its inhabitants, yet for a man who looks forward to the future settlement of a family, France is not, and America in my opinion is, the country to be chosen.

The equality of conditions, and almost equality of fortunes among the French, will be great obstacles to the establishment of manufactures beyond those of mere necessity. I do not think this an evil to the country, because I detest the manufacturing system; observing the fallacious prosperity it induces, its instability, and its evil effect on the happiness and the morals of the bulk of the people. You must on this system have a large portion of the people converted into mere machines, ignorant, debauched, and brutal, that the surplus value of their labour of 12 or 14 hours a day, may go into the pockets and supply the luxuries of the rich, commercial, and manufacturing capitalists. I am grieved to see that so sensible a man as Mr. Hamilton can urge, in his report on american manufactures, their furnishing employment to children, as an argument for their being established in America. I hope to see the time when not only the childhood, but the youth of the poorest inhabitant in this country, female as well as male, shall be employed in the improvement of their understanding, under some system of national education; and in labour no further than

than is conducive to health and pleasure. Let manhood labour; but in my opinion even manhood was not intended for incessant labour, nor is the system of incessant industry conducive to human happiness. The present imperfect state of society and of knowledge may make it necessary, but I hope the universal annihilation of absolute ignorance among us will tend in time to material improvement in the means of promoting human happiness. A small quantity of labour will produce the comforts and conveniencies of life; and the old systems of government have hitherto been the chief supports of unproductive industry and luxurious and unnecessary expenditure. Supposing, therefore, that the French do not become a manufacturing nation, I do think the country, on the agricultural plan, will soon be too highly populated to make the comfortable settlement of a family there so easy as in America. For instance, France, at 24,850,000 of inhabitants, contains 152 per square mile, according to Zimmermann; whose calculation was certainly too low at the time. Dr. Jameson, in his excellent tables of political geography, reckons 157 per square mile in France; this was before the war. Perhaps Zimmermann's calculation will be true on the establishment of peace. In a square mile are 640 statute acres, which gives little more than 4 acres per head. Land, therefore, in France, in the course of a few years, will probably become scarce and dear, and it must be considered that after all we live by the produce of land. America, on the contrary, has land which will be unoccupied for ages; and at present the highest population of the American states is not above 65 per square mile, which I take Connecticut to have. The people of this state find themselves too circumscribed, and yearly emigrate to cheaper situations. Pennsylvania has now about 12 per square mile.

Looking forward therefore to society for my own life, and to the easy establishment of a family hereafter, I choose

America

America and not France. I conjecture, if you remove at all, you will act upon my ideas.

You wish to know what hints I can give you respecting your voyage, should you resolve to venture upon a change of situation.

On a supposition that you have no preference, what part of America you land at, I should recommend your going to some place in Virginia, Maryland, or Philadelphia, if you set out in the spring, or any time from the latter end of February to the latter end of March. If you take your departure in the summer, I would advise you to go to Boston or to New-York, rather than land in the southern provinces during the period of the autumnal heats.

Cabin passengers pay from 25 to 30 guineas each, for which they are found in every accommodation, excepting bedding and linen. They have fresh provisions, wine, spirits, porter, &c. plentifully provided for their use. Steerage passengers, 8 to 10*l.* being found in ship's provisions.

Children in both cases, under 10 or 12, are accommodated at half price. Their bedding and linen, passengers of each kind find themselves. A spring passage will be cold, and therefore the best bedding is a feather-bed cut in halves, which supplies two births—In summer, a mattress so treated will be pleasanter than a feather-bed. In spring, provide yourself with a cloth jacket and trowsers; in summer you should have 2 or 3 nankeen or other light jackets, and 3 or 4 pair of cotton or linen trowsers. A black cravat will be full as convenient on board ship, as a white one.

You should calculate upon a passage of 10 weeks from London (which is usually a week longer than from the western ports of Great Britain); and although you will most probably not be above 7 or 8 weeks from port to port; it will save you some trouble if you pack up your linen beforehand, upon this calculation; for you will have changes ready, without the necessity of opening your boxes immediately.

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Let your linen be put up in weekly parcels; for instance, 2 or 3 shirts, 2 or 3 pair of stockings, 2 or 3 handkerchiefs, and a towel or two. Of these parcels make 10, and you will find it readier than running to your trunk every time you want to dress yourself.

Take care that the captain has a filtering stone, or some other machine for the same purpose, for the use of the cabin passengers. Should your water notwithstanding smell somewhat offensively, which in summer time it will do, this may be remedied by some powder of charcoal. If there is no filtering stone, the mere particles of dirt will be easily thrown down and the water cleared, by putting about a tea-spoonful of a solution of alum into a pint of water, which in a quarter of an hour will be very clear, and its wholesomeness not in the slightest degree impaired.

Take care to provide yourself with lemons, apples, or any other fruit that will keep; you will find them very grateful, especially after sickness. This latter complaint is not dangerous, and is better submitted to than prevented. It goes off earlier by exercise upon deck in the open air than by staying below in the cabin; and it is better cured by gentle dilution, than by loading your stomach with food, or by any preventative or curative medicines. On landing, your health will be better for having been sick at sea. This is, at least, as true with respect to females, as the male sex, generally speaking.

Sickness and want of exercise are apt to induce costiveness: this should be guarded against by the laxative medicines you are accustomed to use; senna, lenitive electuary, jalap, rhubarb, or calomel. This tendency is increased by much animal food and porter, and even the usual quantity of wine. Englishmen are too apt to live in hot weather and southern climates, as they do in the cold and rainy winters of their own country,

You

You will soon get tired of ship biscuit : therefore provide yourself with rusks, or slices of bread baked over again, which you will be obliged to Dr. Franklin for having recommended.

A sea voyage is very tiresome. Take, therefore, books, and cards, and chess, and draughts, if you play at those games.

With respect to the articles worth taking with you for your own use in America, I think the best general rule is to take whatever you can pack up in a box, or a chest, keeping an account of the contents. You may take even your glasses and your crockery. Stock yourself with linen, but you need not overstock yourself with other wearing-apparel. Carry enough, however, for a twelvemonth at least.

Omit not your library; get all your unbound books bound. Settle with some friend of yours an exchange of newspapers, and concert regular exchanges of letters.

The culinary vegetables of America are upon the whole superior to those of England; but the fruits, peaches, melons, cherries, and currants excepted, are inferior. The walnut is rank, small, and oily; the chestnut, though sweeter, is much smaller; nectarines are not much cultivated; of filberts, I saw none; gooseberries are not plentiful south of Long Island. The green gage, the orlean, and the magnum bonum plum, are not common: they have the damascene plum in more abundance. If, therefore, you mean to live in the country, you should certainly collect the stones of these fruits, or procure them to be sent out to you.

For the same reason, you should carry with you some garden flower seeds. For the Americans prefer utility to ornament, so much as to make the articles of this kind that are common with you, not easy to be met with in the country situations there.

Perhaps to an agriculturist it may not be amiss to mention,
that

that they use the drill plough very little in America: they use few or no artificial grasses, except timothy, upon which they depend a good deal in the middle provinces. And they have yet to ascertain whether lucerne and saintfoin, vetches and chicory, will be of benefit to them.

I am, &c.

T. C.

LETTER VIII.

MY DEAR FRIEND,

Kentucky.

OUR laws and government have for their basis the natural and imprescriptible rights of man. Liberty, security of person and property, resistance against oppression, doing whatever does not injure another, a right to concur, either personally or by our representatives, in the formation of laws, and an equal chance of arriving to places of honour, reward, or employment, according to our virtues or talents, constitute those rights. These are the principles of our constitution; and laws grafted upon these simple but substantial principles, and a system of legal jurisprudence organized, and acting accordingly, forms the essence of our government. Whenever the government swerves materially from these fundamental principles, the compact is dissolved, and things revert to a co-equal state. Thus, by this plain definition of the nature of laws and government, every capacity, and every individual of the community, can judge with precision of the purity of legislation; which produces the most entire conviction in the minds of all men, of the necessity there is of acting in every instance according to the code of reason and truth. Every man is equally concerned in

in the welfare and prosperity of his country ; his own felicity can only be co-existent with it ; and to suffer his ambition to run counter to the general weal would be madness in an enlightened commonwealth, as it could only tend to produce his own eternal disgrace or ruin, where the genius of freedom is enthroned in the heart of every citizen.

Europe has long been enslaved by forms and authorities ; and, while its multifarious laws and customs have served only to perplex professional men, the sophistry employed in expounding them has completely bewildered the imaginations of its citizens, and produced an obscurity of ideas upon the subject of jurisprudence and government, which is truly deplorable. There is an old adage which says, " that too much learning makes a man a fool." The pandects, and civil law, added to the barbarous codes of the ancestors of men in your hemisphere, have tended not a little to embarrass the minds of men ; for after a life devoted to the study and investigation of absurdity, the miserable student has generally found one foot in the grave, before he has been able to discover the impossibility of obtaining the object of his pursuit.

Religion, or what you call an establishment, has had its share in rivetting the fetters of ignorance. The elucidation of truth has been retarded by the tyranny of the church ; for while *priests have been the pedagogues of religion, morals, sentiments, and politics*, their interested views have been the cause of their flattering that government, whose interest it was to keep the people ignorant, as it secured to them the undisturbed division of the spoils of the industry of the great bulk of your citizens, while they were offering an indignity as gross to the Deity as their system was unnatural and unjust. What can be a greater supererogation, than presuming to arraign or judge of the sentiments of men, the propriety of which is to be determined before a tribunal in heaven ? It is an insult too gross to merit a comment. It has been sub-
versive

versive of all good morals, by affording a veil to cover the hypocrisy of the most designing knaves.

You must excuse this digression ; I have made it for a subject of reflection for you, that your mind may be prepared to judge impartially of a system so very simple, as that upon which the fabric of our government acts. It was first necessary to shew the cause which has produced that mystery you reverence as wisdom ; but which is absolutely founded in perplexity of opinion and ignorance ; or to give you a clue to reflections that may develope its fallacy.

Every man who is taxed or rated has a vote in the appointment of the representatives of the state ; which consist of two houses, *i. e.* the house of delegates and the senate, who choose a president, or governor, for one year. The governor chooses his own council to advise with him in all public matters. It is not immediately necessary that the legislature should approve of his appointments ; but to prevent the possibility of the exercise of prodigality and contumely, they have reserved to themselves the privilege of objecting to such characters for his advisers who have not the public approbation ; which has the good effect of producing harmony between the government and the people—of obliging men who aspire to the honours of their country to respect the public opinion ; and it prevents the prostitution of principle, by interdicting the pernicious consequences of favouritism ; while no ill can flow from this negative, as it is not to be presumed that the collected sentiments of a whole state can ever be prejudiced against an individual ; and it is impossible for the minds of the legislature to be warped against their president, without sufficient grounds. The very idea is a solecism in reason.

Mr. Jefferson, speaking of the government of Virginia, complains, that the senate, by its constitution, is too homogeneous with the house of delegates (our senate is elected and constituted in the same manner as the senate of Virginia),

ginia), because they are chosen by the same electors, at the same time, and out of the same citizens ; and therefore he says, the choice falls upon the same description of men. It is not exactly thus, though it is liable to be so. The manner of nominating the representatives of every country should be as general as possible. Government is a compact entered into by every community for the security of the happiness and prosperity of the state ; every member of which is one of the aggregate body of that state ; therefore laws ought to emanate from the sentiments of the people.

The wisdom of having two houses of representatives is, that they may be a mutual check upon each other ; and it is expected that the experience and collected wisdom of the senate, who are a less active body than the house of delegates, will more maturely weigh the probable consequences of any act, and prevent, by their suspension, any pernicious effects that might result from its passing into a law ; or, by giving time to the house of assembly, they may correct their own errors.

If the senate has not always been chosen of men of the greatest experience, it has no doubt originated from the ignorance of its political institution ; but that is no argument against the policy of the system. It requires time for every government to acquire its proper tone, and the people must become familiar with that tone, before they can make a proper use of the instrument. At any rate, Mr. Jefferson's opinion appears to me premature ; for if it is necessary to have two houses of representatives, clearly they ought to be elected by the people. As to their being elected at the same time, and from the same description of men, this can signify very little, as it adds to the number of representatives, and consequently there is a more general consent to the legislation. However, our senate will be chosen for three years, and the house of delegates will be elected annually ; and it appears to me, that the people will not only soon discover

discover the object of its political institution, but will carry it into effect. They have only to discover the wisdom of choosing men of experience for the senate, to make it a general practice ; and it most certainly is better to have the system thus open, than by confining the eligibility of a senator to the restriction of a particular age, as that would not only be an encroachment upon the liberties of the citizens, but it would frequently deprive us of the exercise of useful and splendid talents, which might afford to a man an opportunity of obtaining a seat in the senate, when he could not in the house of delegates, by consequence of the greater popularity of the delegates of the district or county to which he might belong.

The president of the state is chosen annually, and eligible for 3 successive years ; after which he must remain out of office 3 years before he can become again eligible. He has a negative voice upon all acts, in consequence of which every usurpation is prevented from being surreptitiously practised upon the people by the two houses of assembly ; and thus a check is given to any inconsiderate step or impetuosity of the legislature, until the sense of the people can be made known, and measures taken accordingly. The president is, besides, the guardian of the police of the state, has the power, with the advice of his council, to pardon criminals, and by proclamation governs or corrects the influence of all extraneous cases.

Such is the organization of our legislative power, which originated from a convention of the people, and may be altered, improved, or amended, by another convention of the same kind, whenever its practice proves its imperfection or deficiency. Thus it is, that in the progression of philosophy and politics, as well as in arts, and the appropriation of experimental truths, the perfection of government is to be ascertained.

All the powers of government revert to the people, and they ought to revert to them; the judiciary having been reserved to them through the medium of juries. The legislative they entrust to their representatives, who are essentially the same; and the executive emanates from the legislature; so that the whole are ultimately responsible to the people: the executive to the representatives, and the representatives to their constituents.

Such is the influence of education and habit, that Mr. Jefferson, who has given every possible proof of his attachment to liberty, although educated when aristocratical opinions were common, says, this is "precisely the definition of despotic government;" and he adds, "that it can prove no alleviation that the powers will be exercised by a plurality of hands, and not by a single one;" and then he triumphantly begs "those who doubt it, to turn their eyes on the republic of Venice." When he wrote this part of his notes, he seems to have been of the opinion of Mr. Burke (whose paradoxical book has found its way out here), when he remarked "that government was a contrivance of human wisdom." Otherwise I am at a loss to conceive how he could compare a government acting upon the unalienable privileges, and the light of reason, to a dark aristocracy which has rivetted upon the minds of their citizens the most diabolical superstition, and who have no more chance of judging of the polity of their senate, than they have capacity: but spread the rays of philosophy and truth among the Venetians, and then, if their tyrants practise the same despotism with impunity, I will allow that Mr. Jefferson's parallel is just. Yet such arguments would deserve nothing but contempt, were not their author respectable for his cardinal virtues, as well as for the career he bore in the glorious struggles for american independence. However, it is a lamentable consideration that men of talents and genius,

nus; who have acquired celebrity among the friends of freedom, should, by vainly circulating their crude sentiments, retard the progress of reason.

What mystery can there be either in politics or religion? Laws founded upon the rights of men, and executed with precision, of which every capacity is adequate to judge, constitute the perfection of the science of government. It is the creation of a distinction of powers, with views to interest, which infallibly leads to the obscurity of the human mind; a distinction to be avoided as much as possible, for the purpose of leaving in the hands of the people, or their agents, the whole powers of government. What fear of a bad administration is to be apprehended, when it is the interest of every individual to continue the guardian of his country's prosperity? It is promoting a distinction when there is none; and by creating a jealousy of power, a real and growing evil is produced, when the danger was only imaginary. What interest, but that of the public, can a legislature have in making the executive part of the government responsible to them? What possible danger or inconvenience can flow from such responsibility in an enlightened state? The maxims of reason and ignorance are different.

The idea which Mr. Jefferson makes use of in another part of his book, that the assembly may assume "all the powers legislative, executive, and judiciary, and that these may come to the smallest rag of delegation," is perfectly nugatory. The judiciary power the people never parted with entirely; and the executive by the agents of the representatives, qualified to judge of the laws and nature of our particular constitution, is not only a custom, but forms a part of the government. It is one of the springs by which the harmony of the system is preserved; and should it at any time be destroyed, it is the people who are to rectify the abuse. They are the potential fountain of all power; and it is only necessary for them and their agents to know this,

in order to prevent every danger of the wheels of government being clogged and impeded by the destruction of any one of its essential springs.

The legislature is not only unqualified for a tribunal to judge of its own laws from the plurality of its numbers, but it is impossible that it could have any object of tyranny in view, when men are familiar with their own rights. And I beg to know what motive, in common sense, could suggest the idea of embarrassing government by mutilating one of its branches? Or is it possible that Mr. Jefferson, when he said under this system, the assembly might "assume all the powers of government," could mean, that as the executive power emanated from the legislature, it was liable to be suborned, or under the controul of the representatives of the state? This idea appears indeed too childish ever to have entered into the head of even an indifferent statesman: the executive agents of a government being independent in their appointments of every power but the laws, are no more liable to be controuled by the legislature, than by any other power which might appoint them.

Kentucky is divided into counties in like manner as the other states, which are similar to the counties in England. It has been the crude practice hitherto, that each county should have 2 delegates, and 1 senator, to represent them, without any regard to the number of suffrages they contained. This imperfect system will be changed by our amended plan as soon as it can be finished, and a *census* taken of the inhabitants; and every county will then have its number of representatives in proportion to its population—which seems to be the only consistent delegation. However, our old system as yet has not produced any bad effects; and as the fluctuations of the populations of the counties were very great, perhaps an attempt at a more exact equality would have been premature.

It is when the local interest of a state becomes different

or various, that this partial representation is liable to abuse of privileges ; but for that reason it ought to be remedied in every state as early as possible.

In every county magistrates, or justices of the peace, are appointed by the people, but commissioned by the governor or president : they act without reward. Their number is in proportion to the population of their district, and they are nominated from time to time as the inhabitants increase, or a vacancy happens from death, or any other cause ; or as their ministry may be required. The most discreet and respectable men for integrity and knowledge are promoted to this office.

If it should happen that an ignorant person were to acquire popularity sufficient to secure his nomination to the office of a justice of the peace, the governor is not obliged to commission him. Thus, if the people should be ignorant, they are obliged to stand upon their guard ; and from this vigilance springs the activity of investigation.

These magistrates have jurisdiction both criminal and civil. If the question be of law only, they decide on it themselves ; but if it be of fact, or fact and law combined, it must be referred to a jury : the jurors decide the fact, and refer the law arising on it to the decision of the judges. However, this division of the subject lies with their discretion only ; and if the question relate to a point of public liberty, or if the judges are suspected of partiality, the jury undertake to decide both law and fact, which obliges judges to be regular, prompt, and just.

When laws are simple, and understood, it is certainly better to leave the decision of a legal question to 12 upright men, than to the arbitrary fiat of interested or prejudiced judges. But it is by this poise, or balance of power, between the jurors and judges, that fair and equitable administration is secured.

The magistrates execute their process by the sheriff, or by

constables. If any person commit an offence against the state, if it be below the degree of felony, he is bound by a magistrate to appear before their court to answer it on indictment or information. If the offence amount to felony, he is committed to prison, a court of magistrates is called, and if, on examination, they find him guilty, he is sent to the general court prison, before which court he is to be tried by a jury of 24, 13 of whom must concur in opinion; if they find him guilty, he is then tried by a jury of 12 of his own county where he offended, and by their verdict (which must be unanimous) he is acquitted or condemned without appeal. The governor has the power to pardon, except in case of treason, in which case the right resides in the general assembly. Such do we conceive to be the value of the life of every citizen, that we afford him every possible chance of proving his innocence.

In civil matters, if the value in dispute be less than 20 shillings, a single magistrate may try it at any time and place within his county, and may award execution on the goods of the party cast. If it be of that, or greater value, it must be determined before the county court, when the quorum of magistrates must be 4 at least; for which purpose, county courts must be holden some day in every month, in the court-house of the different counties. From these determinations, if the value be more than 10*l.* or concern the boundaries of land, there lies an appeal to one of the superior courts. It is optional with the party who brings the action, if the demand is above 10*l.* to bring it either in the county or general court.

We have two superior courts: the high court of chancery, and the general court. Both receive appeals from the county courts, and also have original jurisdiction, where the value is above 10*l.* or where the dispute is concerning land. The high court of chancery is composed of 3 judges; the general court of 5. The chancery holds its sessions twice a year,

year, at stated periods. The general court sessions are quarterly ; twice a year for civil and criminal, and twice for criminal only. There is also a supreme court called the court of appeals, composed of the judges of the two superior courts, which assembles twice a year also, at stated times, at the capital of the state. This court receives appeals in all cases from each of the superior courts, and determines them finally. This court has no original jurisdiction.—Thus far we have followed the model and practice of Virginia. We have no court of admiralty, nor have we completed our system of jurisprudence ; but I will endeavour to give you the outlines or principles which will constitute its basis.

The first object of every free government is security of person and property, which is called freedom. Without such a preservation there can be no pure liberty. Under such a government, every citizen has a right to do whatever does not injure another. The hinge of security in a civilized state is the security of property ; but, in the security given to property, it is necessary that care should be taken not to endanger the liberty of even one of the citizens of a state. For the preservation of personal liberty, some safeguard should be kept, provided by law, both upon the designing and unsuspecting, in order to avoid the great inconveniences that have flowed from knavery and credulity, as well in most of the United States as in Europe. Prisons and dungeons have been perverted into both asylums for rapine and fraud, and into cells of solitary misery and wretchedness, which have in no degree checked the career of dissipation and prodigality, or produced more industry or care ; and while the resentment of disappointed avarice has been glutted in the fury of revenge, the world has lost much of the talents and ingenuity of some of its most valuable citizens. Laws should be calculated to prevent distress from intemperance and folly, and the commission of crimes, as much as possible. Creditors ought to be made cautious

in their security, and when they have trusted beyond a certain sum, or have not taken proper precautions, they should be liable to lose the debt. This would necessarily make the parties prudent, and so far from being injurious to trade, it would prevent many inconveniences which result from hasty dealings and insufficient security. Habit and custom act as powerfully in business as in any thing else. Men would soon acquire this sure way of dealing, and thereby their property would be preserved, and the liberty and talents of every citizen made useful to the state. Every man who lives within his income, and makes prompt payment for what he purchases, is known to be a more valuable member of society than a man who is irregular and uncertain in his payments; and it is the rapid circulation of money in the common affairs of life, which tends to lower the price of its necessaries as effectually, as the frequent returns in commerce tend to accumulate the capital employed. Laws may be made of this sort, I am sure, to regulate the transactions of men, without injuring commerce in the least; on the contrary, it would render it more profitable, vigorous, and extensive. Liberty, and the rights of men, have been shamefully profaned under the crude idea of the aggrandisement of commerce. The fallacy of old errors will moulder away under the radiance of philosophy, and man must look back with indignation at the sacrilege which has sullied his rank and dignity as a human being. Examine the catalogue of the poor and unfortunate debtors who have miserably endured the tortures of cold, hunger, and sickness, in a dungeon, lost to their family and friends, prevented from a possibility of obtaining the necessary means to cancel their penal obligations, and left to brood over the calamities to which the follies of a sanguine youth, bad education, and pernicious laws, have reduced them, and which had encouraged them in the career of vice, and punished them in the hour of despair and mortification; and you must be insensible indeed
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not to deprecate that degradation which indigested, inhuman, and impolitic institutions have produced in every part of the world. These are the sentiments of many of our legislators ; and from such opinions, I flatter myself, we shall afford testimony sufficient that prisons are unnecessary, except for homicides and traitors, who ought to be tried as immediately as the nature of the case would admit. It is the certainty of punishment, and the terror of instantly suffering, that deter men from the commission of those crimes where the conscience is concerned. It is our nature to look at every thing which is remote with indifference ; but proximity excites some sensations of joy or fear in the hearts of the most callous.

It is a cruel mortification to the progeny or family of any man who has disgraced his memory by murder, treason, or any other crime, against either the laws of God or the state ; and it is a lamentable consideration in human affairs, that it should be necessary to make examples which are so degrading to the dignity of our natures. Should we then offer insult to misfortune, and reduce to beggary the innocent offspring or connexions of an offending culprit ? Surely not. The state is the tutelary guardian of its citizens, the protector of innocence, the promoter of felicity and prosperity, the avenger of wrongs ; and not the spoiler of comfort, and the tyrant of humanity. For these reasons, neither murder, treason, or any other crime, ought to rob the family of the property of the offender by forfeiture of lands and goods to the state.

Malefactors, such as have been guilty of petty treason, manslaughter, sodomy, maiming, disfiguring, counterfeiting money, robbery, burglary, house-breaking, horse-stealing, grand larceny, petty larceny, &c. &c. should be condemned to labour for the state during such a length of time as would be proportionable to the crimes they had committed, which should be defined by law ; and in case it should be found,
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from experience, that this system did not tend to deter from the commission of crimes, and was productive of other bad effects, it would then be time enough to introduce more rigorous measures. It is however certain, that as yet the system in question has not had sufficient time to be experienced in its full effects in those states that have introduced it in part. But so far as a judgment can be formed, it is reasonable to expect the most salutary consequences from such humane measures. Our criminal code will be established upon these lenient principles. Our laws respecting foreigners will be founded on the broad basis of hospitality, and the friendly principle, that the world ought to be governed as one great family. Respecting marriage and succession, more conformably to the laws of nature than the laws of Europe — women are permitted to enjoy all the privileges, and all that protection, to which reason and delicacy entitle them. It is upon similar principles that property is distributed in an equal and consistent manner; and that a father is not suffered to disinherit a child, except he can make it appear to a court of justice that he is radically vicious; and even then, such a dereliction must be coerced with considerations pointed out by the law.

Such are the collected sentiments of the people upon the subject of law and government; and we have the satisfaction to know they are analogous to the opinions of a wise and judicious european author, whose virtues and superior good sense have given them a consequence in your own nation, which does him the highest honour; and therefore I will quote from him to conclude this letter, which will shew that the sentiments of enlightened men, upon the subject of freedom and government, differ in no respect from the simple ideas of men who have no guide but reason and common sense.

“ The true interest of the people, then, is to be subject to a legislation, which, while it respects the enjoyments of
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the rights of mankind, is solely intent upon procuring it; and which, faithful to the principles of an enlightened reason, seeks only the surest and simplest means of obtaining this end.—Whatever be the form of government to which the people are subjected, a free commerce, an unrestrained industry, civil laws distinguished for their simplicity, criminal laws for their justice and humanity, founded upon the nature of man, and of society, and deduced from these principles by reason, ought to be everywhere the same.”—Farewell.

Yours, &c.

THE following observations are from that ingenious and judicious writer, Mr. Tench Coxe, of Philadelphia:

THE people of the principal european nations will find themselves more at home in America than in any foreign country to which they can emigrate. The english, german, and dutch languages are fluently spoken by large bodies of our citizens, who have emigrated from those countries, or who are the descendants of emigrants. The french language is also spoken by many in our towns. There are many emigrants from other nations, and the descendants of such emigrants. Our population has been derived from England, Scotland, Wales, Ireland, Germany, the United Netherlands, Sweden, and France, and a few from several other countries. It is computed to be above 3,000,000 at this time*: and the population of no country can increase so rapidly; because living is no where so cheap, and we are constantly gaining people from the nations of the old world.

The state of literature in the United States is respectable, and is rapidly advancing and extending. Seminaries of

* It was a matter of agreeable surprise, that our population in 1791 proved to be about 4,000,000.

learning are spread from north to south. There are 5 universities, no one of which, however, is on a very extensive scale; 14 colleges, and 48 public academies, beside very many establishments of schools, in the townships or hundreds, and under the care of religious corporations and societies. There is scarcely an instance of a state constitution, which does not recognize the utility of public schools, and the necessity of supporting and increasing them. Liberal grants of lands, and other real estates, and of monies, for these salutary purposes, have been and are continually made.

The situation of civil liberty in America is so universally known, that it is scarcely necessary to add any thing upon that head. Yet it may not be amiss briefly to mention, that no man can be convicted of any crime in the United States, without the unanimous verdict of 12 jurymen; that he cannot be deprived of any money, lands, or other property, or punished in his person, but by some known law, made and published before the circumstance or act in question took place; that all foreigners may freely exercise their trades and employments, on landing in our country, upon equal terms with our own natural-born citizens; that they may return at any time to their native country, without hindrance or molestation, and may take with them the property they brought hither, or what they may have afterwards acquired here; that if they choose to remain among us, they will become completely naturalized free citizens by only 2 years residence, but may purchase and hold lands on the day of their arrival; and that a free citizen of the United States has a right, directly or indirectly, to elect every officer of the state in which he lives, and every officer of the United States.

The situation of religious rights in the american states, though also well known, is too important, too precious a circumstance, to be omitted. Almost every sect and form of christianity is known here—as also the hebrew church.

None

None are merely tolerated. All are admitted, aided by mutual charity and concord, and equally supported and cherished by the laws. In this land of promise for the good men of all denominations, are actually to be found, the independent or congregational church from England, the protestant episcopal church, separated by our revolution from the church of England, the quaker church, the english, scotch, irish, and dutch presbyterian or calvinist churches, the roman catholic church, the german lutheran church, the german reformed church, the baptist and anabaptist churches, the hugonot or french protestant church, the moravian church, the swedish episcopal church, the seceders from the scotch church, the menonist church, with other christian sects, and the hebrew church. Mere toleration is a doctrine exploded by our general constitution; instead of which have been substituted an unqualified admission, and assertion, that their own modes of worship and of faith equally belong to all the worshippers of God, of whatever church, sect, or denomination.

LETTER IX.

MY DEAR FRIEND,

Kentucky.

I HAD the pleasure of receiving, within these two days, your favour, dated the 24th of August last, and admire the virtue and humanity of those of your citizens you mention to have left off the use of West India produce, in consequence of your parliament not having adopted any mode of effecting the abolition of the slave trade*.

* The constitution of Kentucky expressly forbids the legislature to interfere in any way whatever in the abolition of slavery. — EDIT.

The little pamphlet you did me the favour to send with your packet, addressed to the people of Great Britain on that subject, with observations upon the situation of the unfortunate Africans enslaved, contains the purest sentiments of benevolence, and the most rational ideas, and it is written with a precision which does the highest honour to the author's head, as well as to his heart.

We have disgraced the fair face of humanity, and trampled upon the sacred privileges of man, at the very moment that we were exclaiming against the tyranny of your ministry; but in contending for the birthright of freedom, we have learned to feel for the bondage of others; and, in the libations we offer to the fair goddess of liberty, we contemplate an emancipation of the slaves of this country, as honourable to themselves, as it will be glorious to us.

I have been ashamed, in reading Mr. Jefferson's book, to see, from one of the most enlightened and benevolent of my countrymen, the disgraceful prejudices he entertains against the unfortunate negroes. But if he has given Europeans a flagrant proof of his prejudices, he has afforded common sense an opportunity of judging from his paradoxes, that such cannot be the general sentiments of the people of America.

In the revision of a code of laws proposed for the state of Virginia, it was recommended to emancipate all slaves born after passing the act, who were to be brought up, at the public expence, to different vocations, until females should be 18, and the males 21 years of age; when they should be colonized to such place as circumstances should render most proper, giving them arms, implements, &c. &c. to declare them a free and independent people, and extend to them their alliance and protection, until they should have acquired strength and power equal to self-protection.

Concerning which measure, Mr. Jefferson says, "It will probably

probably be asked, Why not retain and incorporate the blacks?" He then attempts to give reasons to prove why it would be impolitic; by alleging that the deep-rooted prejudices of the whites, and the recollection of past injuries by the blacks, would be productive of continual feuds, which would probably never end but in the extermination of one or the other race.

To such objections, which he calls political, he says, "may be added others, which are moral and physical." I will observe upon his political opinions first. The great charge such a business would be to that state, would necessarily tend to procrastinate its execution, and perhaps render abortive the whole design, by making it necessary to relinquish an object which the finances of the government would not admit of being carried into execution; and thus a most odious tyranny would be prolonged. Besides, what could be so impolitic, in such a country as Virginia, as banishing a numerous class of men who might be made useful citizens, risking a depopulation of one colour, in order to supply their places with another? an undertaking which, independent of the great expence it would be attended with, would also prove surrounded by many other difficulties. From what country is the vacancy to be filled? Emigrations have been frequent from Europe to America: but it would require a length of time to recruit 250,000 inhabitants, which, I suppose, is nearly the amount of the slaves of Virginia.

There are in politics, as well as in physic, cases which require irregular prescriptions. There is no law in nature which binds one man to another; and laws, which are not founded in the principles of reason and truth, invalidate themselves. There is no statute which gives power to a white man to exercise despotism over a man because he is black. It is contrary to our bill of rights, as well as repugnant to the code of nature. But the mischief lies in the prejudices of the times. A complete emancipation, perhaps, would

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not be borne in Virginia; for which reason it must be gradual, as it has been in Pennsylvania. It would therefore be wise in that state to attach their slaves to the land of their respective masters for a certain term of years; after which they should be at liberty to change their situations, as their circumstances or pleasure would direct, the same as any other tenants.

Such a system, under salutary regulations, would not only afford the negro a considerable proportion of freedom, but would be highly advantageous to the state; as, by parcelling out their immense waste tracts of land into little farms, the low country, which has been impoverished by the pernicious cultivation of tobacco, would become fertilized, and restored to its pristine fecundity.

Let us suppose the present slaves of Virginia placed in such a situation for their lives, and that all blacks, born after passing an act for this purpose, should be free at 25 years of age. This would afford time not only to put these little farms in order, but it would reclaim the exhausted land, and leave the proprietors in a better situation than they otherwise would have been in, from a system which encourages indolence, promotes ignorance, tyranny, and every radical vice; but the blacks, by liberal conditions upon such a plan, with industry, might be able to educate their children, and accumulate a small property to encourage and support their liberty and independence, and the state would have time to acquire white emigrants, if the blacks did not answer the purposes of cultivation, and the end of the civil polity of an enlightened government; to suppose which would be as uncharitable as the remarks of Mr. Jefferson.

It will, doubtless, require a length of time to generalize marriages between the whites and blacks; but that would not prove a material disadvantage to the state. There would always be some whites who would marry blacks for
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the sake of property; and, no doubt, when prejudices are worn away, they would unite from more tender and delicate sentiments.

A judicious author of this country, who has written on the complexion and figure of the human species, has said, "A nation which migrates to a different climate will, in time, be impressed with the characters of its new state. The dark colour of the natives of the West India islands is well known to approach very near to a dark copper. The descendants of the Spaniards in South America are already become copper-coloured. The Portuguese of Mitombo, in Sierra Leone, on the coast of Africa, have, by intermarrying with the natives, and by adopting their manners, become, in a few generations, perfectly assimilated in aspect, figure, and complexion." And lord Kaims, who cannot be suspected of partiality on this subject, says of another portuguese settlement on the coast of Congo, "That the descendants of those polished Europeans have become, both in their persons and in their manners, more like beasts than like men. These examples tend to strengthen the inference from the changes that have happened in the Anglo-Americans; and they shew how easily climate would assimilate foreigners to natives, in the course of time, if they would adopt the same manners, and equally expose themselves to its influence."

Whether the black of negroes resides in the reticular membrane between the skin and scarf-skin, or in the scarf-skin itself—whether it proceeds from the colour of the blood, the colour of the bile, or from that of some other secretion, the difference is not fixed in nature, but is the mere effect of climate, which is proved by the daily testimony of the most enlightened philosophers of the present age; who have for their support the observations and remarks of travellers upon the effects of climate in every part of the globe.

Mr. Jefferson says, it is fixed in nature; and asks, "if
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the difference is of no real importance?" I answer, that it is of no real importance, when compared with the object of rescuing some millions of miserable human beings from the odious prejudices which have degraded a whole race of men to the rank of beasts of burden, because they had the misfortune not to have the tinge of *red and white*.

Were a man, who, with all the ardour of a youthful passion, had just been gazing upon the fair bosom of a loved and beautiful mistress, and afterwards marked the contrast of that paradise of sublunary bliss, to the african or indian hue, to exclaim in the terms which Mr. Jefferson has used, he might be judged excusable on account of the intoxication of his heated senses: but when a grave philosopher, who has passed the meridian of life, sits down to meliorate, by his writings and opinions, the condition of the slaves of his country, whose fetters have fixed an obloquy upon the virtue and humanity of the southern Americans, I confess it appears to me not a little inconsistent.

As to the whites being more elegantly formed, as asserted by Mr. Jefferson, I must confess that it has never appeared so to me. On the contrary, I have often observed, in families which have been remarkable for feeding their blacks well, and treating them in other respects with humanity, that their negroes have been as finely formed as any whites I ever saw.—Indeed my admiration has often been arrested in examining their proportion, muscular strength, and athletic powers.

If they secrete less by the kidneys, and more by the glands of the skin, which gives them a strong and disagreeable odour, it is also certain that white men, inhabiting southern climates, do the same, more than in northern latitudes: by which means an evaporation takes place from the whole surface of the body, which produces that degree of cold which is requisite to counteract the heat of the climate. As there is always a flow of bile proportionate to the degree
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of heat, the perspirable matter will be more or less saturated with that fluid, which, from an antiseptic quality, produces that odour which is supposed to indicate an original difference; but which, in reality, may be discovered in a degree in all black-haired people in all countries.

No doubt, too, much of that odour is owing to their difference of living from that of the whites: for it is certain, that those negroes who are cleanly, and live in the manner of their masters, have less of it.

However, there can be no doubt but that the animal system may be so materially affected by climate, as to require a length of time to restore it to its pristine state; and whether man was aboriginal to Asia, or whether every continent has had its Adam, is of no consequence to the argument:—it is certain we are essentially the same in shape and intellect.

“Comparing them by their faculties of memory, reason, and imagination, it appears to me,” says Mr. Jefferson, “that in memory they are equal to the whites, in reason much inferior, as I think one could scarcely be found capable of tracing and comprehending the investigation of Euclid; and that in imagination they are dull, tasteless, and anomalous. It would be unfair to follow them to Africa for this investigation; we will consider them here on the same stage of the whites, and where the facts are not apocryphal on which a judgment is to be formed.”

Can any position be more puerile and inconsistent? “We will consider them on the same stage of the whites, and then a comparison is not apocryphal.” Now I beg to know what can be more uncertain and false than estimating or comparing the intellect or talents of two descriptions of men; one *enslaved, degraded, and fettered in all their acts of volition, without a vista through which the rays of light and science could be shot to illumine their ignorant minds*—the other free, independent, and with the advantage of appropriating the reason and science which have been the result of the study and

labours of the philosophers and sensible men for centuries back. If there have been some solitary instances where negroes have had the advantage of education, they have shewn that they are in no degree inferior to whites, though they have always had in this country the very great disadvantage of associating only with their ignorant countrymen, which not only prevents that polish so essential to arrest admiration, but which imperceptibly leads to servility from the prevalence of manners.

Mr. Jefferson's own arguments invalidate themselves. "Homer told us," he says, "nearly 3000 years since,

"Jove fix'd it certain, that whatever day
Makes man a slave, takes half his worth away."

Now it is most certain that the negroes in America have not only been enslaved, but that they have existed under the most inhuman and nefarious tyranny, particularly in the southern states.

Baron de Tott, speaking of the ignorance of the Turks, who are also slaves, but whites, said, "that it was with difficulty that he could make them comprehend how two triangles could be equal to one right one." But it is only necessary, to prove the nullity of Mr. Jefferson's arguments, to copy his own reflection. He asks, "if the world has produced more than two poets acknowledged to be such by all nations; how many mathematicians, how many great inventors in arts and sciences had Europe, north of the Alps, when the Romans crossed those mountains?" and then he says, "it was sixteen centuries before a Newton could be formed." And after asking these questions, he absurdly expects that black poets and mathematicians are to spring up like mushrooms.

However, a black in New-England has composed an ephemeris, which I have seen, and which men, conversant in the science of astronomy, declare exhibits marks of acute reason and genius.

To contend, however, that the world has produced but two poets, is rather the assertion of a pedant than a philosopher; and to maintain that no persons read Milton and Shakespear with delight but Englishmen, is not strictly just: for every man of taste and judgment who understands the english language to perfection, must read them, and many other english poets, with the most animated pleasure. And if the Jerusalem Delivered, the Henriade, and the Lusiad, have only been generally read by the countrymen of their respective authors, it is not because they have neither genius nor excellence, but because it has been more the system of education in Europe to study the classics than the modern languages, which has given a predominant preference among the literati in every country to the greek and latin poets.

“ Religion has produced a Phyllis Wheatly; but it could not produce a poet,” is another of Mr. Jefferfon’s dogmata. Phyllis was brought from Africa to America, between 7 and 8 years of age; and without any assistance from a school education, and before she was 15 years old, wrote many of her poems. This information is attested by her then master, John Wheatly, dated Boston, November 14, 1772. I will transcribe part of her poem on Imagination, and leave you to judge whether it is poetical or not. It will afford you an opportunity, if you have never met with it, of estimating her genius and Mr. Jefferfon’s judgment; and I think, without any disparagement to him, that, by comparison, Phyllis appears much the superior. Indeed, I should be glad to be informed what white upon this continent has written more beautiful lines.

“ Imagination! who can sing thy force?
Or who describe the swiftness of thy course?
Soaring through air to find the bright abode,
Th’ imperial palace of the thund’ring god,
We on thy pinions can surpass the wind,
And leave the rolling universe behind:

From star to star the mental optics rove,
 Measure the skies, and range the realms above ;
 There in one view we grasp the mighty whole,
 Or with new worlds amaze th' unbounded soul.
 Though winter frowns, to fancy's raptur'd eyes
 The fields may flourish, and gay scenes arise;
 The frozen deeps may burst their iron bands,
 And bid their waters murmur o'er the sands;
 Fair Flora may resume her fragrant reign,
 And with her flow'ry riches deck the plain ;
 Sylvanus may diffuse his honours round,
 And all the forest may with leaves be crown'd ;
 Show'rs may descend, and dews their gems disclose,
 And nectar sparkle on the blooming rose."

Mr. Jefferson has been equally severe upon Ignatius Sancho. But, as I have not the honour to be acquainted with Mr. Sancho's writings, I shall conclude that that criticism is equally marked with prejudice. His saying, "that Terence was a slave, but not black," is in contradiction to the testimony of every other authority ; who all agree, that he was not only an African but a Numidian, who are all known to be black.

But, to complete his paradoxes, Mr. Jefferson has remarked, "that the Indian, with no advantage of education, is eloquent and ingenious," without recollecting that the savage is free while the poor African is enslaved ; though he allows that servitude destroys half the worth of the human soul.

But to do justice to his candour and heart, I will give you his conclusion upon this subject : "The whole commerce between master and slave is a perpetual exercise of the most boisterous passions, the most unremitting despotism on one part, and degrading submissions on the other. Our children see this, and learn to imitate it. The parent storms, the child looks on, catches the lineaments of wrath, puts on the same airs, gives a loose to his worst of passions ;
 and

and thus nursed, educated, and daily exercised in tyranny, cannot but be stamped with odious peculiarities."

After making several moral reflections upon the subject of slavery, he finishes with these emphatical words: "Indeed, I tremble for my country, when I reflect that God is just: that his justice cannot sleep for ever: that, considering numbers, nature, and natural means only, a revolution of the wheel of fortune, an exchange of situation, is among possible events: that it may become probable by supernatural interference! The ALMIGHTY has no attribute which can take side with us in such a contest."

You see, my dear friend, how powerful is the effect of habit and prejudice; that with ideas and principles founded in reason and truth, sufficient to demonstrate that slavery destroys the energy of the human mind, and with a heart which does honour to Mr. Jefferson as a man, his mind is so warped by education and the habit of thinking, that he has attempted to make it appear the African is a being between the human species and the oran-outang; and ridiculously suffered his imagination to be carried away with the idle tales of that animal's embracing the negro women, in preference to the females of its own species.

GREAT GOD! how long is the world to be tantalized with such paltry sophistry and nonsense! My pity and indignation have been alternately excited since I have been writing this letter. But, I hope those dazzling rays of philanthropy which gleam in the flattering account you have given me of the disposition of your countrymen, will give a stab to the principles of domestic tyranny, and fix an odium upon those leachers of human blood, as flagrant as they are contemptible. Farewell. In the libations of this night, and appropriate hours of love and social pleasure, the object of using my feeble powers in attempting to alleviate the oppressions of the miserable in every part of the world, shall not be forgotten.

I remain, most affectionately,

Yours, &c.

LETTER X.

MY DEAR FRIEND,

YOUR last favour gave me the most lively pleasure; but, I fear, you have been too sanguine in the expectation, that the degree of loss to the revenue in consequence of the increased number who have left off the use of sugar, will compel your parliament to abolish the slave trade upon the principle of policy.

No doubt but the system is impolitic under every consideration; but when a government acts more upon principles of patronage, than upon a wise and liberal policy, little is to be expected from opinions so vitiated and controlled by bad habits of thinking.

Ignorant minds are always the most incorrigible; and the devastations which folly and contumely have produced in their perseverance in error, shew, in the strongest of all possible light, the advantage of philosophy. While weak men dread what they call innovation, amendments will be very tardy; and until education with you is ameliorated, I expect your unnatural system of slavery, chartered companies, &c. &c. will be continued. However, an æra will arrive when states who are more wise than your nation appears to be in the appropriation of useful truths, will eclipse the brilliancy of your commerce, and then the spirit of a people renowned for their magnanimity will tear from the fair face of reason, the odious mask which has so long obscured her lustre.

It requires no oracular faculties to see that that period is rapidly advancing; and it is to be presumed that the most conceited and stubborn steward would take some precaution against the dangers of an impending hurricane.

Previous to your last request, I had interspersed in my different letters some account of the natural history of this country,

country, and had referred you to Mr. Jefferfon for more full information; but as it is always with the greateft pleasure I write to you, I fhall give you fuch an account of it as the length of a letter and my knowledge of the fubject will permit.

I am too proud to make any apology for being obliged to give you in many instances the popular names of our vegetables, &c. &c.; for I think it is high time that the linnæan designation was anglicifed.

Linnæus had great merit as firft nomenclator in the fci-ence of natural hiftory, and no doubt did the world a great and effential good by preferring the latin to the fwedifh language for his purpofe. But from the perfection which botany and natural hiftory have attained, I think the object of fimplifying, or rendering into english, the various terms in that fci-ence, highly worthy the attention of fome enlightened philofopher.

True, the latin has hitherto been the moft general language in Europe among fcientific men, and thus far the infancy of the ftudy has been rapidly matured by the happy adoption. But the english language bids fair to fupersede it; and when we take a view of the different parts of the globe that are fettled by people who fpeak english, and compare it with the perfection which that language has arrived at, I think it feems probable in the courfe of time that it will become univerfal.

We have a variety of fpontaneous kinds of grafs, for many of which we have no name. I have fpoken of the cane and its properties in a former letter, which the farmer may confider as a grafs, fince it will anfwer every purpofe of grafs to him. I have alfo mentioned our clover and rye-grafs. Befides which, we have, of the grafs kind, the pea-vine, which in a fmall degree refembles your pea-vine. It has the fame kind of tendril, and runs up the cane, shrubs, and rye-grafs, which frequently grows interfperfed with it.

Its

Its blossoms are of a reddish hue, and it produces a small and imperfect pea. In very rich soil, it grows from 3 to 5 feet high; but in general it does not exceed 18 inches or 2 feet, and is not of so luxuriant a growth as the vine of the cultivated pea, but has a much nearer resemblance to grass.

Our other principal sorts of natural grass are, the buffalo, orchard, spear, blue, and crab grasses. The buffalo grass is rather coarse, grows from 9 to 18 inches high, and is generally found most plentiful in a middling soil. It has a broad leaf, and seems unworthy of cultivation. The latter kinds generally spring up after the land has been cultivated, and from excellent pastures; and are also capable of being made into hay, particularly the spear and blue grass.

Every part of the country abounds in a variety of natural flowers. The crocus, and a profusion of daisies, appear on the approach of spring, which are succeeded by the daffodil, jonquil, hyacinth, tulip, and a multitude of other flowers, such as heart's-ease, lilies, red and white, hollyhocks, pinks, golden rod, cowslips, may-flowers, jessamine, columbine, honeysuckles, rock honeysuckles, tuberose, ranunculas, marsh-mallows, violets, roses of different sorts, &c.

Of herbs, &c. we have of the wild sort, marjoram, fennel, sage, thyme, indian-leaf, rosemary, angelica, fennel, lovage, mugwort, ox-eye, mother-wort, feverfew, cat's-mint, pennyroyal, rue, mint, yarrow, burnet, nettle, fanicle, rupture-wort, cudweed, white and black maiden-hair, colewort, ground-pine, tooth-wort, ground-ivy, lung-wort, mountain-polly, winter-green, horehound, ladies-mantle, celandine, jew's-ear, horse-mint, liver-wort, water-creffes, scurvy-grass, mustard, hyssop, tansey, dock, asmart, glasswort, hellebore, wolf's-bane, spikenard, &c.

You will observe, that we have adopted names that are common in Europe, and presume that it is the affinity between

tween your plants of the above names, and ours, which has produced these denominations. How far they are applicable, requires a better botanist to determine than I profess to be; and to relate their different minutiae, would be both tedious and unsatisfactory, as it is impossible to give a just idea of their comparative similarity by a description *.

FARINACEOUS, LEGUMINOUS PLANTS, &c.

Indian corn, *zea maiz*, is a grain the size of a pea; some of it is as large as the sugar-pea: it grows on a stamen in ascending rows: some of these stamens bear upon them to the number of 700 grains, and they have even been counted to a greater amount. This stamen may be about 2 inches thick, by 7 or 8 inches and upwards in length: it is enfolded in several covers of thin leaves, which screen it from the rapacity of the birds. Its foot or stalk is often of the same dimensions; having leaves 2 inches broad and upwards, by 2 feet and a half in length, which are channeled or formed like gutters, by which they collect the dew that dissolves at sun-rising, and trickles down to the stalk, sometimes in such abundance as to wet the earth around them for the breadth of 6 or 7 inches. Its flower is on the top of the stalk, which is sometimes 8 feet high. Five or 6 ears are commonly found on each stalk; and, in order to procure a greater crop, the part of the stalk above the ears should be cut away. For sowing the maiz in a field already cleared and prepared, holes are made 4 feet asunder every way, observing to make the rows as straight as may be, in order the more easily to weed them. Into every hole are put 5 or 6 grains, previously steeped in water for 24 hours at least, to make them spring up the quicker, and to prevent the fox and the birds from devouring such quantities of them as they otherwise would. By day people are placed to guard them against

* However, as an account of the properties, culture, and uses of the principal of them is indispensable to new settlers, it is added by the present editor.

birds; by night fires are kept up at proper distances to frighten away the fox, who would otherwise turn up the ground and eat the corn of all the rows, one after another, without omitting one, till he has his fill, and is therefore the most pernicious animal to this production. The corn, as soon as shot out of the earth, is weeded: when it mounts up, and its stalks are an inch big, it is hilled, to secure it against the wind. Such as begin a plantation in woods thick set with cane, have an advantage in the maiz, that makes amends for clearing the ground; a labour always more fatiguing than cultivating a spot already cleared. The advantage is this: they begin with cutting down the canes for a great extent of ground; the trees they peel for 2 feet high quite round: this operation is performed in the beginning of March, as then the sap is in motion in this country: about a fortnight after, the canes, being dry, are set on fire: the sap of the trees is thereby made to descend, and the branches are burnt, which kills the trees. On the following day the corn is sown in the manner already described: the roots of the cane, which are not quite dead, shoot fresh canes, which are very tender and brittle; and as no other canes grow in the field that year, it is easy to be weeded of these canes, and as much corn again may be produced as in a field already cultivated. This grain is eaten different ways: the most common method is to make it into sagamity, which is a kind of gruel made with water, or strong broth. Bread is also made of it, like cakes (by baking it over the fire on an iron plate, or on a board before the fire), which is far preferable to what is baked in the oven, at least for present use: but it must be made every day; and even then it will be too heavy to soak in soup of any kind. A light and black soil agrees much better with the maiz than a strong and rich one. This corn, it is well known, is very wholesome both for man and other animals, especially for poultry. The natives, that they may have
change

change of dishes, dress it in various ways. The best is to make it into what is called parched meal. As there is nobody who does not eat of this with pleasure, even though not very hungry, it will be proper to give the manner of preparing it, that our own people, who rear this grain, may draw the same advantage from it.

The corn is first parboiled in water; then drained and well dried. When it is perfectly dry, it is then roasted on a plate made for that purpose, ashes being mixed with it, to prevent it from burning; and it is kept continually stirred, that it may take only the red colour which is wanted. When it has got that colour, the ashes are removed, it is well rubbed, and then put into a mortar with the ashes of dried stalks of kidney-beans, and a little water; it is then beat gently, which quickly breaks the husk, and turns the whole into meal. This meal, after being pounded, is dried in the sun; and, after this last operation, it may be carried anywhere, and will keep 6 months, if care be taken from time to time to expose it to the sun. When wanted for consumption; it is mixed in a vessel two-thirds water with one-third meal, and in a few minutes the mixture swells greatly in bulk, and is fit to eat. It is a very nourishing food, and is an excellent provision for travellers, and those who go to any distance to trade. This parched meal, mixed with milk and a little sugar, may be served up at the best tables. When mixed with chocolate, it makes a very lasting nourishment. From maiz is made a strong and agreeable beer; and a brandy is likewise distilled from it.

Wild oat; *zizania aquatica*.

Wild rye. Lieutenant-governor Mercer, a native of Virginia, who has seen this plant growing, and eaten the seed of it, gives the following account: "The wild rye, which grows everywhere in the Ohio country, is a species of the rye cultivated by the Europeans. It has the same bearded ear, and produces a farinaceous grain. The ear and grain
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in the wild state of this plant, are less, and the beard of the ear is longer than that of the cultivated rye, which makes this wild plant resemble more the rye-grass in its appearance; but it differs in no other respect from the rye, and it shoots in its spontaneous vegetation about the middle of November, as the cultivated rye does." The fact thus ascertained, that there is, in this part of the world, a plant of spontaneous growth which produces bread-corn, led governor Pownall to inquire a little farther into the history of the plant called wheat; and he found in Diodorus Siculus a traditionary piece of history, in confirmation of what he had before held merely as a matter of opinion: he says, "that Isis was the discoverer to mankind of the fruit of wheat and barley (growing perchance amongst the other wild plants of the earth unknown to men), and that Osiris taught them the manner of cultivating this to use." But Polyhistor, as quoted by Eusebius, giving an account, which he took from Berosus, of the ancient natural state of Mesopotamia, where Babylon was built, says, "that in the earliest times it abounded with wild wheat, *πυρὸς ἀγρίος*, amongst the other indigenous plants." These two facts, arising in places, though somewhat similar in situation, yet in such remote parts of the earth, and in such distant periods of time, throw a kind of light upon each other.

Wheat, rye, barley, and oats, grow extremely well in these parts; but one precaution is to be added in regard to wheat. When it is sown by itself, as in England, it grows at first surprisingly; but when it is in flower, a great number of drops of red water are observable at the bottom of the stalk, within 6 inches of the ground, which are collected there during the night, and disappear at sun-rising. This water is of such an acrid nature, that in a short time it consumes the stalk, and the ear falls before the grain is formed. To prevent this disaster, which is owing to the too great richness of the soil, a method that has succeeded extremely well,

well, is, to mix with the wheat intended to be sown, some rye and dry mould, in such a proportion that the mould shall be equal to the rye and wheat together. This method M. le Page du Pratz saw practised in France; and, on his asking the reason of it, was told by the farmer that, as the land was new, and had lately been a wood, it contained an acid that was prejudicial to the wheat; and that as the rye absorbed that acid without being hurt, it thereby preserved the other grain. Barley and oats are to be seen in this country 3 feet high.

Indian millet; *holcus laxus*.

The rice which is cultivated here was brought from Carolina. It succeeds surprisingly well, and experience has proved, contrary to the common notion, that it does not require to have its foot always in the water. It has been sown in the flat country without being flooded, and the grain that was reaped was full grown, and of a very delicate taste. The fine flavour need not surprise us; for it is so with all plants and fruits that grow without being watered, and at a distance from watery places. Two crops may be reaped from the same plant; but the second is poor if it be not flooded.

The first settlers found in the country french-beans of various colours, particularly red and black, and they have been denominated beans of 40 days, because they require no longer time to grow and to be fit to eat green. The apalachian beans are so called because they were obtained from a nation of the natives of that name. They probably had them from the English of Carolina, whither they had been brought from Guinea. Their stalks spread upon the ground to the length of 4 or 5 feet. They are like the other beans, only much smaller, and of a brown colour, having a black ring round the eye, by which they are joined to the shell. These beans boil tender, are tolerably well tasted, but are sweetish, and rather insipid.

Lupine;

Lupine ; *lupinus perennis*.

Jerusalem artichoke ; *helianthus tuberosus*.

Cumlings ; *cucurbita verrucosa*.

Cushas ; *cucurbita melopepo* ; squashes, a kind of pumpkin, as cultivated here, being of an easy culture in the poorest soils, and yielding a great and beneficial increase of food, ought not to be forgotten, though, on account of their being chiefly used as a sauce, they may be thought of inferior consequence. Their culture is so easy as to require little or no attendance after the seed is in the ground ; they overgrow every kind of grass or weed, and are generally planted by dropping some seeds in the potatoe or corn-fields, and their increase is immense : was the shield-shaped squash from the north added to this, it would prove a beneficial addition. All these kinds are eagerly eaten by cattle and horses of every sort, and they increase milk.

Pease, as they are here called, but improperly, because species of the *phaseolus* and *dolichos* are meant, follow the maize in point of utility. It is well known, that most people use them like european pease, either green or dry ; and some kinds, such as the small white sort, the bonavist, cuckolds-increase, the white black-eyed pea, the white crowder, and many others, are undoubtedly at least as good. Add to this, that, while young, hull and all, they make a fine esculent dish for the table ; and, when shelled, they are as good as green pease, and as much admired ; the hulls, after threshing, are eagerly sought after by cattle, and increase milk : the hogs fattened with this pulse, are the next best pork to those fed with maize. Thus they infinitely increase the quantity of food ; their culture is easy ; they are generally now planted between the corn at the second time of hoeing ; they want little or no attendance in that case, as the corn serves them for support to climb up by ; and the farther attendance on the corn also serves the crop of pease. This husbandry seems to be a very good one, as by the time that
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the cirrhi take hold of the corn, it is sufficiently filled to be out of all danger of hurt from this parasitical nature of the pease. It is probable, also, that the haulm left behind may supply the land with sufficient manure to recruit its vegetative vigour, which maiz is but too apt to exhaust. The proper pea is not so fit for the field in this part of America, therefore only cultivated in gardens for the purpose of eating them green.

All kinds of melons succeed to admiration in this country. Those of France, of Spain, of England, which last are called white melons, are here infinitely finer than in the countries from whence they have their name; but the best of all are the water-melons. As they are not generally known abroad, a description of them will not be unwelcome to the reader: The stalk of this melon spreads like all others upon the ground, and extends to the length of 10 feet. It is so tender, that when it is any way bruised by treading upon it, the fruit dies; and if it is rubbed in the least, it grows warm. The leaves are very much indented, as broad as the hand when they are spread out, and are somewhat of a sea-green colour. The fruit is either round like a pompion, or oblong. There are some good melons of this last kind; but the first sort are most esteemed, and deservedly so. The weight of the largest rarely exceeds 30 pounds, but that of the smallest is always above 10 pounds. Their rind is of a pale green colour, interspersed with large white spots. The substance that adheres to the rind is white, crude, and of a disagreeable tartness; and is therefore never eaten. The space within that is filled with a light and sparkling substance, that may be called, for its properties, a rose-coloured snow. It melts in the mouth, as if it were actually snow, and leaves a taste like that of the water prepared for sick people from gooseberry jelly. This fruit, therefore, cannot fail of being very refreshing; and is so wholesome, that persons in all kinds of distempers may satisfy their appetite

with it, without any apprehension of being the worse for it. The water-melons of Africa are not by far so grateful to the palate as these. The seeds of water-melons are placed like those of the french melons. Their shape is oval and flat, being as thick at the ends as towards the middle ; their length is about 6 lines, and their breadth 4. Some are black, and others red ; but the black are the best, and it is those you ought to choose for sowing, if you wish to have good fruit ; which you cannot fail of procuring, if they be not planted in strong ground, where they would degenerate, and become red.

Panic ; panicum, or guinea corn ; differs from maiz in being more difficult to be reduced into food, and being of too hot a nature for brutes, especially poultry, who will become blind by eating it often. It impoverishes land ; but, when sown at broad-cast, will yield a fine and profitable crop of hay for such as are inclined to keep horses or milch cows near home ; nor has it in this case so bad an effect on the soil.

Buck-wheat justly deserves to be here enumerated, as the most fattening grain to all animals, but especially hogs and poultry ; which latter are always surprisingly multiplied where this grain is raised. To man it is also an excellent food. It is well known, that in Philadelphia buck-wheat cakes are one of the articles of that city at their breakfasts. It is also a noble crop near an apiary, and will multiply honey greatly. It requires a light loamy soil well broke, and to be sowed very thin. It improves land wherever it is planted.

Purslain ; *portulaca oleracea*.

Lettuce ; *lactuca virofa*.

FIBROUS PLANTS, &c.

Wild hemp ; *acnida cannabina*.

Wild flax ; *linum virginianum*.

Hemp

Hemp and flax Great Britain imports from the Baltic annually to the value of 1,500,000*l.* sterling. Neither Carolina nor Georgia have any lands comparable to our fine lands on the Mississippi, and yet they have already exported great quantities of hemp. The lands are so rich on the Mississippi, that neither of these two impoverishing plants will exhaust them; and there is every encouragement to their cultivation, which is so universally understood that it needs no description. Thoroughly pulverizing the earth, and not sowing it too thick, are almost the only things to be attended to in its cultivation; and the proper criterion of rotting the ligneous parts of the plant, so that they may be easily separated in the brake, is the only one of moment in preparing it for embarkation. Add to this, that ere long we shall have extensive settlements, producing immense quantities of materials for exportation on and near the banks of that almost unbounded interior ocean the Mississippi, for 3000 miles up its course; not to mention the products of the river Ohio, the Shawanese, Ouabache, Hogoheegee, Yafsoo, Missouri, St. Peter, St. Francis, and the Red and Black rivers, with many others of inferior note, all emptying themselves into it, where there is so much room for the increase of people, which always proceeds in proportion as there is more space for them to sit down in. This is beyond reply verified by so amazing a rapidity of increase as America has experienced within these 40 years, being no less than in triplicate proportion; and since the cruel war, carried on by Great Britain and her allies against France, is still greater. Now it is evident, that to carry off the produce of this vast tract, it will be necessary to build ships in every part of it, which, together with their bulky commodities, must be sold abroad, as a very few small craft will be sufficient to bring up the trifling returns the inhabitants of this happy country may stand in need of. This being the case, let us consider that timber, iron, lead, &c. are found up

this river, but without rigging and sails they cannot constitute a ship; likewise we must recollect, that rigging and sails are bulky articles, and would cost much for carrying up so immense a distance. A very strong kind of fibre, called indian hemp, is found growing in these parts; it would be highly proper to set on foot an inquiry into its nature and properties: the savages use it, and it is extremely probable that it would be found worth improving. The use of flax is too well known, and its necessity so evident, that a description or recommendation of its culture and preparation would be superfluous. The north-american annona, the lime, and mahoe tree, all indigenous here, yield each a serviceable bark of great use if properly manufactured.

Hop; *humulus cupulus*. Hops grow spontaneously through all this country. In some of the provinces of Sweden, a strong kind of cloth is said to be prepared from hop stalks; and in the transactions of the swedish academy for the year 1750, there is an account of an experiment made in consequence of that report. Of the stalks, gathered in autumn, about as much was taken as equalled in bulk a quantity of flax that would have produced a pound after preparation. The stalks were put into water, and kept covered therewith during the winter: in March they were taken out, dried in a stove, and dressed as flax. The prepared filaments weighed very nearly a pound, and proved fine, soft, and white; they were spun and woven into 6 ells of fine strong cloth. The author, Mr. Schiffler, observes, that hop stalks take much longer time to rot than flax; and that, if not fully rotted, the woody part will not separate, and the cloth will prove neither white nor fine. Dr. Lewis's notes on Neumann's Chymistry, 4to, London, 1759, p. 429. Though the hop grows naturally, yet such as have a desire to make use of it for themselves, or sell them to others, cultivate this plant. It is planted in rows, distant asunder 6 feet, in holes 2 feet and 1 foot deep, in which the root is lodged. When
shot

shot to a considerable height, a pole of the size of one's arm, and between 12 and 15 feet long, is fixed in the hole; care is had to direct the shoots to it, which fail not to run up the pole. When the flower is ripe and yellowish, the stem is cut quite close to the earth, and the pole pulled out, in order to pick the flowers, which are saved.

Tobacco; *nicotiana*. Without disparaging what is made in other countries, it may be affirmed, that the tobacco which grows in the country of the Natchez, is even preferable to that of Virginia, or St. Domingo: this country is mentioned, because the soil at that post appears to be more suitable to this plant than any other; although it must be owned, that there is but very little difference betwixt the tobacco which grows there, and the adjacent parts, as at the Cut-point, at the Nachitoches, and even at New-Orleans; but whether it be owing to the exposure, or to the goodness of the soil, it is allowed that the tobacco of the Natchez and Yafous is preferable to the rest.

The method of planting and curing tobacco in this country is as follows: They sow it in beds well worked with the hoe or spade, in the months of December, January, or February; and, because the seed is very small, they mix it with ashes, that it may be thinner sowed; then they rake the beds, and trample them with their feet, or clap them with a plank, that the seed may take sooner in the ground. The tobacco does not come up till a month afterwards, or even for a longer time; and then great care must be taken to cover the beds with straw, or cypress bark, to preserve the plants from the hoar frosts that are very common at that season. There are, at present, but two sorts of tobacco produced; the one, *pointe coupée*, with a long and sharp-pointed leaf; the other, *nanquitoche*, has a round and hairy leaf: this latter is reckoned infinitely the best.

At the end of April, or towards St. George's day, the plants have about 4 leaves, of which the best and strongest

are now plucked: these are planted out on the tobacco-ground by a line stretched across it, and at 3 feet distance from one another: this is done either with a planting-stick, or with the finger, leaving a cavity on one side of the plant, to receive the water with which it must be watered. The tobacco being thus planted, it should be looked over evening and morning, in order to destroy a black worm, which eats the bud of the plant, and afterwards buries itself in the ground. If any of the plants are eaten by this worm, others must be set close by them. You must choose a rainy season to plant your tobacco, and you should water it 3 times to make it take root. But the ground is never laboured in this country for planting tobacco; it is reckoned sufficient to stir the earth a little about 4 inches square round the plant.

When the tobacco is about 4 or 5 inches high, they weed it, and clean the ground all about it, and hill up every plant. The same is done again when it is about a foot and a half high *. And when the plant has about 8 or 9 leaves, and is ready to put forth a stalk, they nip off the top, which is called topping the tobacco (reserving a few with their heads on for seed): by this amputation the leaves grow longer and thicker. After this, you must look over every plant, and every leaf, in order to suck it, or to pull off the buds which grow at the joints of the leaves; and at the same time you must destroy the large green worms that are found on the tobacco, which are often as big as a man's finger, and would eat up the whole plant in a night's time.

This done, care must be taken to have ready a hanger (or tobacco-house), which is here made in the following man-

* The plants are at this period out of danger of being scratched out of the ground by a large flock of turkies which may now be turned into the field, who will not touch the plants, but carefully look for the worms that infect them, of which those birds are very fond; and thus they will save a great deal of labour; but the suckers must be attended to by human labour, which is also required to keep the ground clear from weeds.

ner : Several posts are set in the ground, at equal distances from one another, with a beam at top of them, making thus the form of a house of an oblong square. In the middle of this square two forks are set up, about one-third higher than the posts, with a pole across them, for the ridge-pole of the building; upon which the rafters are nailed, and covered with cypress bark, or palmetto leaves. The first settlers likewise built their dwelling-houses in this manner, which answered the purpose very well, and as well as the houses their carpenters built for them, especially for the curing of tobacco, which they hung in these houses upon sticks, or canes, laid across the building, and about 4 feet and a half asunder, one above another.

The tobacco-house being ready, you wait till your tobacco is ripe, and fit to be cut, which you may know by the leaves being brittle, and easily broke between the fingers, especially in the morning before sun-rise; but those versed in this business know when the tobacco is fit to cut by the looks of it, and at first sight. You cut your tobacco with a knife, as nigh the ground as you can; after which you lay it on the ground for some time, that the leaves may fall, or grow tender, and not break in carrying. On carrying your tobacco to the house, you hang it first at the top by pairs, or two plants together, thus continuing from story to story, taking care that the plants thus hung are about 2 inches asunder, and that they do not touch one another, lest they should rot. In this manner the whole house is filled with tobacco, and left to sweat and dry.

After the tobacco is cut, the ground on which it grew is weeded and cleaned: each root then puts out several suckers, which are all pulled off, and only one of the best is left to grow, of which the same care is taken as of the first crop. By this means a second crop is procured on the same ground, and sometimes a third. These seconds, indeed, as they are

called, do not usually grow so high as the first plant, but notwithstanding they make very good tobacco.

If you have a mind to make your tobacco into rolls, there is no occasion to wait till the leaves are perfectly dry; but as soon as they have acquired a yellowish brown colour, although the stem be green, you unhang your tobacco, and strip the leaves from the stalks, lay them up in heaps, and cover them with woollen cloths, in order to sweat them. This done, you stem the tobacco, or pull out the middle rib of the leaf, which you throw away with the stalks as good for nothing; laying by the largest and the longest of the leaves that are of a good blackish brown colour, and keep them for a covering to your rolls. After this you take a piece of coarse linen cloth, at least 8 inches broad, and a foot long, which you spread on the ground, and on it lay the large leaves you have picked out, and the others over them in handfuls, taking care always to have more in the middle than at the ends: then you roll the tobacco up in the cloth, tying it in the middle and at each end. When you have made a sufficient number of these bundles, the negroes roll them up as hard as they can with a cord about as big as the little finger, which is commonly about 15 or 16 fathom long: you tighten them 3 times, so as to make them as hard as possible; and, to keep them so, you tie them up with a string.

However, unless for domestic use, it is now cured in hands, or bundles of the leaves, which are packed up in hogsheds for exportation. In order to cure the tobacco in this manner, they wait till the leaves of the stem are perfectly dry; and, in moist giving weather, they strip the leaves from the stalk, till they have a handful of them, called a hand, or bundle of tobacco, which they tie up with another leaf. These bundles they lay in heaps, in order to sweat them; for which purpose they cover those heaps with blankets, and

and lay boards or planks over them. But you should take care that the tobacco is not over-heated, and does not take fire, which may easily happen; accordingly, you uncover your heaps from time to time, and give the tobacco air, by spreading it abroad. This you continue to do till you find no more heat in the tobacco: then you pack it in hog-heads, and may transport it any where, without danger either of its heating or rotting.

Indigo, for its culture, requires a tolerably rich loose soil, and the field ought to be as nearly as possible a perfect level. It will grow in any soil, from the heaviest to the lightest; but rich hammoc, or oak land, of a moist nature, is the best adapted to this purpose. The ground should be thoroughly cleaned, and reduced to a perfect garden mould: this is the most laborious part of the culture, and so absolutely necessary that no crops can be expected without it.

Seed of the best kind abounds on the Mississippi; about 4 bushels of seed are requisite for an acre, and it must be sown in drills about 2 feet apart; the time of approaching rain is always best; the season for sowing sets in the beginning of March, and may be continued on till May: if the season be any thing favourable, it will afford five cuttings between March and November; seven weeks being a long allowance between each two cuttings: great caution must be had about cutting, for, if that be done in dry weather, it will infallibly destroy the plant; but in rainy weather there is no manner of risk. By this treatment and care the plant is continued for years together in the warmer climates. It ought to be cut as soon as there is any appearance of blossom; 10 weeks from planting will generally ripen the seed perfectly: when cut, it is tied in bundles and carried to the vats.

The vats are 3 in number, and ought to be, the first very large, the second one-third less, and the third smaller still. At the head of the large vat stands a pump to fill it with water.

water. These vats, particularly the first, or steeping vat, ought to be made of very hard timber. In this steeping vat the weed is thrown together, and pressed down with pieces of live oak or other solid and ponderous timber ; it is then covered with water by means of the pump : here it remains to ferment. The crisis whereby to know the exact time it is to remain in this vat is when the liquor thickens, begins violently to effervesce, and assumes a purplish blue colour ; this will be effected in a longer or shorter space of time from 8 to 20 hours, according to the temperature of the atmosphere.

The steeping vat projects with one edge about 3 feet over the second, or beating vat ; in this edge the bottom of the first has a hole with a plug ; this plug must be drawn as soon as the above signs of the completion of fermentation appear, to draw off the liquor from the weed, which last is absolutely useless : except perhaps it might be employed to good purpose in a saltpetre manufacture. In this second or beating vat, as soon as the liquor is in, it must be beat or stirred by a process similar to churning. This is a laborious work, and used to be performed by negroes, who draw up and down a lever that has either one or two bottomless square buckets at each end ; but of late horses have been employed in large works. This churning is continued till the dying particles are separated from the liquor, or, as it were, sufficiently congealed to form a body or mass. Here lies the secret of the art ; for, if the beating be ceased too soon, a part of the dying matter remains undissolved, and if beat too long, some part will again dissolve : only experience can teach this criterion, and there is but one method to try it ; which is by taking up some of the liquor in a phial or cup, and observing whether the dying matter is inclined to depose itself or not. All farther theoretical lessons would be fruitless ; the young planter must have recourse to practice. Lime-water is used by the English to hasten the separation ;

ration ; but there is reason to think this spoils the indigo ; neither the French, Dutch, nor Spaniards use any in their plantations.

The indigo being arrived at this crisis, the churning ceases, and it is left to subside at the bottom of the vat. When the liquor begins to look of a faint green transparent colour, the water must be drawn off, first by a cock fixed at a certain height in the side of this second vat, till you come near to the superficies of the residuum, which is the indigo ; then another cock, corresponding with the third vat, must be opened to let the residuum run into this last vat, where it remains to settle a little longer, in order that it may totally discharge itself of all the tinging matter* ; it is then put into bags in the form of Hippocrates's sleeve, to drain it from all superfluous humidity : these bags must hang in the shade.

When all the water is drained from it, the remainder, which has all the appearance of mud, is put into very shallow boxes, where it is left to dry. When it begins to have the consistence of clay fit for brick-making, it must be cut with a very thin bladed knife into square pieces, and then farther left to become quite dry, which is the state in which indigo comes to the consumer.

This last process must be all done under a shed where the air has free access, but the sun none. Should the sun touch indigo in this state, it would exhale all the tinging matter, and leave the mass in a colourless state, similar to slate in appearance : beware also of moisture, for that will keep it dissolved, and incline it to putrefaction.

Some planters press their bags in a box of about 6 feet long, 3 feet wide, and 2 deep, having holes in the bottom to let the water off, and a strong thick board fitting exactly in

* This will be completely deposited in about 8 or 10 hours time ; the residuum must be strained through a horse-hair sieve, previously to its being put into bags, in order to have it entirely pure, and free from extraneous matter.

it. In this box the indigo bags are laid, and the board with a number of weights on it ; but whether this method is better than hanging them in a shed to dry is uncertain.

It should have been observed, that in the drying shed the pieces must be carefully turned 3 or 4 times a day, and that 2 young negroes with a bush, wing, or bunch of feathers, ought to be employed in fanning the flies out of the drying shed, as they are hurtful to indigo. Be cautious also, in packing it in barrels, not to put it in till it is thoroughly dried.

The dimensions of a set of vats in Carolina are about 16 feet square, and 3 feet deep in the clear, for the steeper ; and the battery 12 feet square and $4\frac{1}{2}$ feet deep for every 7 acres of indigo. They make them of $2\frac{1}{2}$ inch plank of cypress, and the joints or studs of live oak ; to these the planks are well secured by 7 inch spikes : such a set will last 7 or 8 years.

The best indigo is called floatant or flora ; this is light, pure, and approaching to hard ; it floats on water, is easily inflammable, and is almost totally consumed by fire ; the colour is a fine dark blue inclining to violet, and by rubbing it with the nail it assumes the colour of old copper. The next best is more ponderous, and is called violet, or gorge de pigeon, in allusion to its colour : these two are the best for dying or staining linen and cotton. The third kind is of a copper colour, deriving its name from the coppery appearance it exhibits on being broke ; this is the weightiest of all the merchantable indigo, therefore much desired by the planters, and is most used for the woollen manufacture.

The inferior sorts are not worth describing, as they are unsaleable and not fit for use ; they discover themselves by flintiness, or a muddy, soft, crumbling appearance, accompanied by a dull blue colour, often appearing even like slate.

An indigo work should always be remote from the dwelling-house, on account of the disagreeable effluvia of the rotten

rotten weed and the quantity of flies it attracts ; by which means it is also scarce possible to keep any animal on an indigo plantation in any tolerable case, the fly being so troublesome, that even poultry thrive but little where indigo is made : nor is there hardly a possibility to live in a house nearer than a quarter of a mile to the vats. The stench at the work is likewise horrid. This is certainly a great inconvenience ; but it is the only one to which this profitable business is subject.

Cotton being so very useful a commodity as scarcely to be exceeded by any other, and an article of which we can never raise too much ; for, like all other things, the more it is multiplied the more its consumption increases ; it is proper to be mentioned in this place. Cotton will grow in any soil, even the most meagre and barren sand. The sort to be cultivated here is the *gossypium anniversarium*, or *xylon herbaceum* ; known also by the name of green-seeded cotton, which grows about 4 or 5 feet in height. Give this plant a dry soil, and farther it will cost you but little trouble or attention. It must be planted in rows at regular distances about 6 feet apart. Plant the seed in rainy weather ; and, in about 5 months time, the fibres will be completely formed and the pods fit to gather, which will be known by their being fully expanded. It must now be carried to the mill, of which take the following description :

It is a strong frame of 4 studs, each about 4 feet high, and joined above and below by strong transverse pieces. Across this are placed 2 round well-polished iron spindles, having a small groove through their whole length, and by means of treddles are by the workman's foot put in directly opposite motions to each other. The workman sits before the frame, having a thin board of 7 or 8 inches wide, and the length of the frame, before him. This board is so fixed to the frame, that it may be moved over again, and near the spindle. He has the cotton in a basket beside him, which he spreads with his left hand on this board along the
spindles,

spindles, which by their turning draw the cotton through them, being wide enough to admit the cotton, but too near to permit the seed to go through ; which, being thus forced to leave the cotton in which it was contained, and by its rough coat entangled, falls on the ground, between the workman's legs, while the cotton drawn through falls on the other side into an open bag suspended for that purpose under the spindles.

The French have much improved this machine by a large wheel which turns 2 of these mills at once, and with so much velocity as, by means of a boy who turns it, to employ 2 negroes at hard labour to shovel the seed from under the mill. One of these machines captain Bernard Romans, from whom we have this account, saw at Mr. Kreb's at Pasca Oocooloo ; but, as it was partly taken down, he, claiming the invention, was very cautious in answering the questions put to him by the captain ; he could not pretend to describe it accurately ; he was credibly informed, however, that one of those improved mills will deliver 70 or 80 pounds of clean cotton per diem.

The packing is done in large canvass bags, which must be wetted as the cotton is put in, that it may not hang to the cloth, and may slide better down. The bag is suspended between 2 trees, posts, or beams, and a negro with his feet stamps it down. These bags are made to contain from 350 to 400 weight. With about 20 slaves, moderately working, a very large piece of poor ground might be finely improved, so as to yield to its owner a large annual income by means of a staple which is much in demand in England, and here is raised of a quality by no means inferior in whiteness and fineness, as well as length of fibres, to that of the Levant.

Roots, &c.

Sarsaparilla grows naturally in these parts, and it is not inferior in its qualities to that of Mexico. It is so well known, that it would be needless to enlarge upon it.

Indian

Indian physic; *spiræa trifoliata*.

Ipecacuanha; *phycotria emetica*; is found in almost every spot of oak-land in this country: it may deserve to be manufactured from the spontaneous root, if not to be cultivated.

Pleurisy root; *asclepias decumbens*.

Virginia snake root; *aristolochia serpentaria*.

Black snake root: *actæa racemosa*.

Senega rattlesnake root; *polygala senega*. A bulbous root, like that of the tuberose, but twice as large. The leaves of both have the same shape and the same colour, and on the under side have some flame-coloured spots; but those of the rattlesnake plant are twice as large as the others, end in a very firm point, and are armed with hard prickles on both sides. Its stalk grows to the height of about 3 feet, and from the head rise 5 or 6 sprigs in different directions, each bearing a purple flower an inch broad, with 5 leaves in the form of a cup. After these leaves are shed there remains a head about the bigness of a small nut, but shaped like the head of a poppy. This head is separated into 4 divisions, each containing 4 black seeds, equally thick throughout, and about the size of a large lentil. When the head is ripe, it will, when shaken, give the same sound as the tail of the rattlesnake, as if to indicate the property of the plant; for it is the specific remedy against the bite of that dangerous reptile. The person who has been bit should immediately take a root, bite off part of it, chew it for some time, and apply it to the wound; in 5 or 6 hours it will extract the poison, and no bad consequences need be apprehended.

Valerian; *valeriana locusta radiata*.

Ginseng; *phanax quinquefolium*.

Cassava; *iatropha urens*.

Granadillas; *passiflora incarnata*.

Flat root receives its name from the form of its root,
which

which is thin, flat, pretty often indented, and sometimes even pierced through : it is a line, or at times 2 lines in thickness ; and its breadth is commonly a foot and a half. From this large root hang several other small straight roots which draw the nourishment from the earth. This plant, which grows in meadows that are not very rich, sends up from the same root several straight stalks about 18 inches high, that are as hard as wood ; and on the top of the stalks it bears small purplish flowers, in their figure greatly resembling those of heath ; its seed is contained in a deep cup closed at the head, and in a manner crowned. Its leaves are about an inch broad, and about 2 long, without any indentions, of a dark green inclining to brown. It is so strong a sudorific, that the natives never use any other for promoting perspiration, although they are perfectly well acquainted with sassafras, sarsaparilla, the esquine, and others.

Esquine. The esquine partly resembles a creeper and partly a bramble. It is furnished with hard spikes like prickles, and its oblong leaves resemble those of the common creeper. Its stalk is straight, long, shining, and hard ; and it runs up along the reeds. Its root is spongy, and sometimes as large as one's head, but more long than round. Besides the sudorific virtue which the esquine possesses in common with the sarsaparilla, it has the property of making the hair to grow, and the women among the natives use it successfully with this view. They cut the roots into small bits, boil them in water, and wash their heads with the decoction. Several of them are seen with their hair reaching below their knees, and even down to their ancles.

Madder ; *rubia tinctorum*. This root is one of the most useful ingredients in dying wool and stuffs red, as also cotton of an agreeable bloom colour, and consequently in general request for the different manufactures at home and abroad. It is likewise said, that madder is an excellent food for cattle, that it increases milk, and causes the butter to take
a pleasant

a pleasant colour and flavour; it is sometimes cut for hay, and we are told that it makes an excellent fodder. This plant undoubtedly deserves our attention, especially as the many attempts to grow it to advantage in England seem for the most part unsuccessful. Many different kinds of madder have been tried for this purpose; but none have yet proved of real use except the *rubia tinctorum fativa* of C. Bauhine, which is the sort cultivated in Zealand, and some part of Flanders.

The ground in which madder thrives best seems to be a deep black mould, in something of a low situation, which should not have a clay foundation, but rather sand or gravel: the land in Zealand is, and that on the river Amite seems to be, in general of this kind. It is cultivated in Zealand by off-sets, or shoots, which they take from an old plantation, and replant immediately in rows, about 18 inches apart; the young plants have each a distance of 4 inches allowed them, and the ground is divided into beds of 12 feet wide, leaving a ditch of about 20 inches between them: this is done in the beginning of May, and great care is taken that no off-set is planted, without it be furnished with fibres; it being thought that for want of fibres they would miscarry, which they often do even in the most favourable seasons. The greatest labour the people in Holland seem to have in regard to this culture, is the covering the stalks, when they attain the height of about 16 inches, leaving only the tops bare, in order to promote the multiplication of roots, which is the part of the plant manufactured and sold. When this covering is performed, there remains only the attention of weeding, which ought to be done often. The root is generally taken up the second year, but it has been thought that three summers are necessary for this crop to come to full maturity: the roots that are said to yield the most and best dye, have been taken up when they had attained about 3-tenths of an inch diameter in size. It is

thought that when they grow too large, they yield a dye more inclining to yellow than to red. The lateral fibrous vermicular roots are said to yield a superior dye, but not to pay for the expence necessary for gathering them.

From this general sketch of the madder culture, as it is managed in Holland and Zealand, the reader may see, that it is not so very expensive an affair as it is commonly deemed to be; but, like all other things, the cultivation of this plant may be carried on at too costly a rate, and it likewise may be attempted in too penurious a way. The cultivation by sets or shoots being practised in countries where the seed does not at all, or very difficultly come to maturity, perhaps the seed should be obtained from plants brought and transplanted hither; which if productive of seed, ought to be sown in drills, like rice, as probably the most eligible method in the moderate climates of these provinces. This plant seems to be a great impoverisher of the soil; for in Zealand they always allow some years between every two crops in the same spot.

It having lately been advanced, that there was no necessity for drying madder; and that, in using it green, there is, even in the evaporation of dying matter, a saving of one half, besides the greater saving of the expences of a kiln, a mill, a drying-house, &c. the reader must be informed, that he will find all this to be true; but then it will be necessary for him to transport the dying-houses from Europe to our madder-fields, and not the madder to the dyers, in order to enjoy the profits of all this great and æconomical frugality: for, perhaps there is not a plant on earth so soon inclining to fermentation and putrefaction, which is occasioned by its succulency; yet for the planter's present family use it is certainly fit to use green. As soon as the roots have become spotted, or black, or lost a strong scent (similar to that of liquorice), they are utterly unfit for any use. It will be proper therefore to make a few remarks, necessary to be known for the
drying

drying process in these countries. A hot sun-shiny day may be used to advantage, to dry the roots partially; but, if the weather be not favourable, when the roots are taken up, they must be spread within doors on a floor, taking care to spread them thinly, and stir them often: but this will never absolutely preserve them from changing, much less make them fit for transportation to any distance. If the crop be small, a baker's oven may suffice; but beware of raising the heat above 180 degrees of Fahrenheit's thermometer in the place where the roots are put, which should be over the oven: but for larger crops, kilns similar to malt-kilns are necessary. Take care to make them roomy, keep an equal and moderate heat, and by all means prevent any the least access of smoke to the roots; for which reason large ovens would be advisable, such as the biscuit-bakers in Holland use, as preferable to every other method. A building may be so artificially contrived as to contain 13 ovens, viz. 4 on each side, 3 at one end, and 2 at the end where the door is, with one general brick floor over all: one or two windows may be so contrived as to give access to a sufficient light. Let us suppose the oven 10 feet long, by 8 wide, and allow 2 feet for each partition; this will make an oblong apartment of 42 feet by 32 in the clear below, and on the upper floor 52 by 42, room enough for any crop. Provide good brick funnels to your chimnies, and there can be no danger of fire; the rest of the building may be of timber. In this process madder will lose 5-sixths of its weight. When the roots are sufficiently dried, they must be pounded in wooden mortars; for this purpose a mill constructed exactly like the old-fashioned rice-mills is very proper, only varying in the shape of the lower end of the pestle or beetle; for in the rice-mills their lower end is in form of an inverted cone; but here the lower end ought not only to terminate in a square, but the but end ought to be cut into small squares, so as to render the pestle toothed:

for this reason also the mortar should be of a different form from the rice-mortar, which last is likewise an inverted cone, or shaped like the side of the top of a funnel; whereas this ought to be in form of a hollow globe, which has a neck like a decanter or bottle, in which neck the pestle ought nearly to fit. To empty the mortars and supply them with fresh roots, is a necessary occupation during the pounding. The roots should be cleared of their outer bark. It will then be fit for packing into casks and exportation. Captain Bernard Romans remembers to have heard it said in Holland, that poor people, in order not to be obliged to sell their small crops to the manufacturer, at his own price, preserve the roots from fermentation, by burying them between layers of earth in the ground, and that by this means it may be preserved for any length of time, without perceptible alteration.

Jalap, an article of consequence in commerce, not only on account of its use in medicine, but likewise for its universal employment in the fermentation of liquors. Europe has hitherto been obliged to import this commodity from Mexico, in which kingdom is a place called Xaleppo or Yaleppo, from whence this drug has its name; the only place where it was supposed to grow. We have hitherto been at a loss to know the genus to which it belongs, and many roots of purgative quality have been taken for it, and were substituted in its room. The late Dr. Houston introduced it from Mexico into Jamaica; but while he was gone to England, the man whom he left it in care of, suffered hogs to destroy it: however, this gentleman brought a pencil drawing of it to Europe; but, as this did not shew the colour, and the seed having been sown in the botanical garden at Chelsea, without success, what it was remained still a secret, until captain Bernard Romans found it growing wild near Pensacola; and, being led to think that a certain tuberous root made use of by the savages as a purgative, might be
the

the same, he dried some slices of it, and found it to agree so nearly with that drug in appearance, that it induced him to examine all the convolvuli he could find in this country, as he was informed that to that genus the plant belonged. He succeeded; and samples which he sent to divers parts of Europe and America, have proved it to be the same, and of a good quality. This plant is pretty plentiful in some spots on the highest and driest lands; and captain Romans supposes its cultivation must be somewhat analogous to that of carrots.

Potatoe. The following list will point out the varieties in an ascending scale for goodness: 1. Spanish, or the original root. 2. Carolina, little superior to the first. 3. Brimstone, from its internal colour, with a red skin. 4. Purple potatoe, having that colour throughout, except a very little of the heart. 5. Bermudas, or round white potatoe. The first is scarce fit for the table, being very fibrous, therefore most proper to feed cattle; however, pork of hogs fed with them is but indifferent, and requires to be hardened a considerable time with corn. It is remarkable that in pork fed with them the fat always separates wholly from the lean, which is likewise the case with that fed on the common peruvian potatoe, vulgarly called the irish. The fourth and fifth are excellent food, and deserve a place on every table; the fourth, cut into longitudinal slices and fried, is a very good dish; plainly boiled, they are an excellent succedaneum for bread. The fifth, being less sweet and more dry than the others, are best for stewing with meat, such as fat pork or beef, or a fat goose or duck, to make what is called an haricot: their very mealy texture renders them the most proper in room of bread, or to mix with flour and made into bread.

They are a profitable crop, and require a light sandy soil, which must be made very clean and mellow: they are planted in beds or hills, being propagated from pieces that have what

they call an eye in them ; they require 2 or 3 hoeings, and with this management will produce from 300 to 500 bushels per acre ; even the last, if we reckon 10 hills necessary to make a bushel. About July, in rainy weather, slips are taken from them, and planted in beds to procure a crop of small ones for next year's seed. The very same treatment is here necessary for the peruvian potatoe, but it wants oftener covering, because the heat of the summer sun would strengthen the poisonous juices (with which this genus of nightshade abounds), in those that might be exposed to the air ; therefore they are unfit for the field in this climate : nor will they bear to be kept any time but in the garden. They will yield 6 or 8 crops yearly, of a very good kind for the table.

FRUITS, &c.

Mulberry ; *morus*. Capt. Romans, among his botanic articles, gives the description of one of this class, which he believes to be the *morus papyrifera*, and which he distinguishes by the name of, *morus foliis palmatis, cortice filamentosa, fructu nigro, radice tinctoria* ; that is, with hand-shaped leaves, a thready bark, black fruit, and the root containing a dye. This tree is found in abundance in the north-western parts of Florida. The Chactaws put its inner bark in hot water along with a quantity of ashes, and obtain filaments, with which they weave a kind of cloth not unlike a coarse hempen cloth. If the bark were boiled in a strong alkaline lixivium, there is little doubt but a very fine and durable thread of the nature of cotton, flax, or hemp, might be obtained : the root of this same tree likewise yields an excellent yellow dye. But the article must be here treated of which is most commonly known to be produced by means of the mulberry-tree : this is silk. A very short time, about 6 weeks in the year, will suffice for all the labour requisite to acquire this valuable article ; and that labour is so light

as only needs children to attend it. The gathering of the leaves being the most laborious part of the business, it would be advisable to sow the seed as it were at broad-cast, so that it may spring up in form of wide hedges of about 10 feet breadth, leaving a lane of 2 feet between each pair: by this management the leaves may be gathered by means of a pair of shears; or, if the hedges are narrower, the hand may do it, without the disagreeable necessity of climbing trees, which is always more or less attended with some danger; and, as this is a female employment, is not so proper. Mulberry-bushes will grow thus, and yield abundance of leaves; and therefore this method is preferable to groves or orchards, which take up much room, and have a dirty effect during the fruit season.

All the species of mulberry-trees grow kindly in these latitudes, and some people pretend the white kind to be best; but on strict inquiry it cannot be ascertained in what manner this affects the worms; however, it would be highly advisable for the silk-planter to be very cautious, if he has one in his nursery, strictly to banish the other; because this change of leaves is doubtless the occasion of some of the diseases attending the worms. The remainder of the silk culture is no more than to keep the worms well fed, and the apartment where they are kept thoroughly clean. When they begin to acquire a certain transparency, the period of their spinning or resolving themselves into a chrysalis is at hand; then it is necessary to put up bundles of some slight thin twigs between the shelves. The wild or dog's fennel affords a ready and proper material for it: on this the worms will naturally enough mount, and pitch on a place where to metamorphose themselves into a cocoon. In Georgia they have a filature, and likewise at Puryburg; but it will be necessary here to subjoin the following account of its preparation for the manufactory: 1. The cocoons are to be put into an oven just hot enough to deprive

the chrysalis it involves of life, without hurting the fibres of the cocoon. A heat something below boiling water on Fahrenheit's scale will effect this: without this precaution the insect eats its way out, and destroys the thread of silk.

2. It must then be put into a copper with water just on the point of boiling, and kept so; this will discharge the glutinous matter from the cocoon, and discover the end of the clue: then, taking several of these ends together, they are to be gently reeled off, and afterwards spun and prepared for the loom. This process is hurtful to the elasticity and strength of the silk, though it does not deprive it of its gloss: therefore, if we could obtain the knowledge how the raw silk is managed in the Levant, it would be the most eligible way; all we know about this method is, that it is performed without hot water: this is called raw silk, and comes in bales to England and other manufacturing countries. The refuse cocoons, either damaged by the insect or otherwise, are carded in Europe, and are then improperly styled raw silk; this should not be confounded with the above-named from the Levant, being by no means equal to it. After the silk is reeled off, we find some irregular coarser kind on the inner division of the cocoon; damaged cocoons are mixed with this, as also the inner division next over the chrysalis, after being steeped in warm water to dissipate its gelatinous parts; this mixture is carded, and called flossing. All these carded silks lose their lustre by that process.

Green river plum.

Barren, or red plum.

Cherokee plum; *prunus sylvestris fructu minori*.

Wild cherry; *prunus virginiana*.

Wild crab-apple; *pyrus coronaria*. Apples and pears are here of very good quality, but are never likely to become an object of attention by growing in quantities sufficient to make cider and perry; but peaches grow here of the finest flavour,

flavour, and in the highest perfection, on standard trees, and therefore are fit to be planted in orchards. It is well known that hogs fattened with them make an excellent pork; the superfluous quantity would not be ill employed that way: but, as in Virginia they have set us the example, why can we not also distil their juices; and, by means of that spirit which becomes excellent by age, at least partially banish the money-draining useless article rum? This tree should be grafted, not so much on account of the choice of fruit (this country produces no indifferent ones), as because the tree in this climate, especially in sandy soils, is not so lasting when raised from the nut, as when grafted on its own or any other proper stock.

Perfimmon; *diospyros virginiana*. The persimmon, which the French call placminier, very much resembles the medlar tree in its leaf and wood: its flower, which is about an inch and a half broad, is white, and is composed of 5 petals; its fruit is about the size of a large hen's egg; it is shaped like the medlar, but its substance is sweeter and more delicate. This fruit is astringent; when it is quite ripe, the natives make bread of it, which they keep from year to year; and the bread has this remarkable property, that it will stop the most violent looseness or dysentery; therefore it ought to be used with caution, and only after physic. The natives, in order to make this bread, squeeze the fruit over fine sieves, to separate the pulp from the skin and the kernels. Of this pulp, which is like paste or thick pap, they make cakes about a foot and a half long, a foot broad, and a finger's breadth in thickness: these they dry in an oven, upon gridirons, or else in the sun; which last method of drying gives a greater relish to the bread.

There are various kinds of grapes. It were needless to attempt to describe them all; as indeed it would be impossible to be sufficiently acquainted with them all. I shall only speak of three or four. The first sort that I shall mention

mention does not perhaps properly deserve the name of a grape, although its wood and its leaf greatly resemble the vine. This shrub bears no clusters, and you hardly ever see upon it above two grapes together. The grape in substance and colour is very like a violet damask plum, and its stone, which is always single, greatly resembles a nut. Though not highly flavoured, it has not, however, that disagreeable sharpness of the grape that grows in the neighbourhood of New-Orleans.

On the edge of the savannahs or meadows we meet with a grape, the shoots of which resemble those of the burgundy grape. They make from this a tolerably good wine, if they take care to expose it to the sun in summer, and to the cold in winter. This experiment has been made, but it never could be turned into vinegar. There is another kind of grape which may without hesitation be classed with the grapes of Corinth, commonly called currants. It resembles them in the wood, the leaf, the tree, the size, and the sweetness. Its tartness is owing to its being prevented from ripening by the thick shade of the large trees to which it twines. If it were planted and cultivated in an open field, there is not the least doubt but it would equal the grape of Corinth, with which it has been classed. Muscadine grapes, of an amber colour, of a very good kind, and very sweet, have been found upon declivities of a good exposure, even so far north as lat. 31. There is the greatest probability that excellent wine might be made of these, as it cannot be doubted but the grapes are capable of being brought to great perfection in this country, since, in the moist soil of New-Orleans, the cuttings of the grape which some of the inhabitants of that city brought from France, have succeeded extremely well, and afforded good wine.

Scarlet strawberries; *fragaria virginiana*; of an excellent flavour, and so plentiful, that from the beginning of April the savannahs appear quite red with them.

Whortle-

Whortleberries; *vaccinium uliginosum*. The blue whortleberry is a shrub somewhat taller than the english gooseberry bushes, which are left to grow at random. Its berries are of the shape of a gooseberry, grow single, and are of a blue colour: they taste like a sweetish gooseberry, and when steeped in brandy make a good dram. Several virtues are attributed to this berry. It loves a poor gravelly soil.

Wild gooseberries; *ribes grossularia*.

Cranberries; *vaccinium oxycoccos*.

Black raspberries; *rubus occidentalis*.

May-apple. This apple is produced from an annual plant which is among the first vegetables that come forward in the spring; it is about 10 or 12 inches high, advancing rapidly to maturity, and the apple grows much in the manner of the potatoe seed, and is nearly of the same size. When ripe it is of the colour of a pale orange. The pulp is of a succulent nature, without any seed, and its flavour very much like the pine-apple. It is ripe early in June.

Acimene. This fruit grows upon a shrub, and is from 4 to 5 inches in length, and from 1 to $1\frac{1}{2}$ diameter. The pulp is sweet and tender. It ripens in July.

Peakimine; a species of plum, nearly the size of the mogul-plum, but more delicious.

Papaw. This fruit grows upon a tree from 12 to 26 feet high. It is in shape more like a seed cucumber than any thing else. It is ripe about midsummer. Its pulp is yellow, and somewhat of the consistence of an indifferent melon, and its flavour very much like a custard; but it is too luscious to be agreeable; though, when boiled green, it is good eating: but the rind, which is easily stripped off, leaves on the fingers so sharp an acid, that if you touch your eye with them before you wash them, it will be immediately inflamed, and itch insupportably for 24 hours after.

NUT-TREES, &c.

Scaly bark hiccory; *juglans alba cortice squamoso*.

Common

Common hiccory ; *juglans alba fructu minore rancido*.

There are a variety of other kinds of hiccory which have not been designated. The hiccory bears a very small kind of nut, which at first sight one would take for filberts, as they have the same shape and colour, and their shell is as tender ; but within they are formed like walnuts. They have such an excellent taste, that the French make fried cakes of them as good as those of almonds.

Black walnut ; *juglans nigra*.

White walnut ; *juglans alba*.

In this country are great numbers and a variety of kinds of walnut-trees. There is a very large kind, the wood of which is almost as black as ebony, but very porous. The fruit, with the outer shell, is of the size of a large hen's egg : the shell has no cleft, is very rough, and so hard as to require a hammer to break it. Though the fruit be very well tasted, yet it is covered with such a thick film, that few can bestow the pains of separating the one from the other. The natives make bread of it, by throwing the fruit into water, and rubbing it till the film and oil be separated from it. If these trees were grafted with the french walnut, their fruit would probably be improved. Other walnut-trees have a very white and flexible wood. Of this wood the natives make their crooked spades for hoeing their fields. The nut is smaller than the english, and the shell more tender ; but the fruit is so bitter, that none but parroquets can put up with it.

Chestnut ; *fagus pumila*. The large chestnuts are not to be met with but at the distance of 100 leagues from the sea, and far from rivers in the heart of the woods, between the country of the Chactaws and that of the Chicafaws. The common chestnuts succeed best upon high declivities, and their fruit is like the chestnuts that grow in the woods of France. There is another kind of chestnuts which are called the acorn chestnut, from its shape, and growing in a cup like the acorn. But they have the colour and taste of a chestnut ;

chestnut; and, if the first men lived upon acorns, as we are told, it was most probably these.

Hazel nut; *corylus avellana*. The Carolina ground-nut also grows low down on the Mississippi; and the peccane in the Illinois, in the county of Cumberland, and everywhere near the mouth of the Ohio. It is about two-thirds of the size of an english walnut, and the shell is smooth and tender. Mr. Jefferson designates it thus: *juglans alba, foliolis lanceolatis, acuminatis, ferratis, tomentosis, fructu minore, ovato, compresso, vix insculpto, dulci, putamine tenerimo*.

Poke; *phytolacca decandra*. Plane-tree; *platanus occidentalis*. Lime-tree; *zilia americana*. Poplar; *liriodendron tulipifera*. Black poplar; *populus nigra*. The cotton tree (a poplar) is a large tree which nowise deserves the name it bears, unless for some beards that it throws out. Its fruit, which contains the grain, is about the size of a walnut, and of no use: its wood is yellow, smooth, somewhat hard, of a fine grain, and very proper for cabinet work. The bark of its root is a sovereign remedy for cuts, and so red that it may even serve to dye that colour.

Red flowering maple; *acer rubrum*. Umbrella tree; *magnolia tripetala*. Buck-eye; *æsculus*. Aspen; *populus tremula*. Reed, or cane; *arundo phragmitis*. Locust; *robinia pseudo acacia*: the acacia is the same in Louisiana as in France, much more common, and less straight. The natives call it by a name that signifies hard wood; and they make their bows of it, because it is very tough. They look upon it as an incorruptible wood, which induced the french settlers to build their houses of it. The posts fixed in the earth must be entirely stripped of their bark; for, notwithstanding their hardness, if the least bark be left upon them they will take root.

Honey locust; *gleditsia*. Barberry; *berberis vulgaris*. Dogwood; *cornus florida*. Snowdrop tree; *chionanthus virgi-*

virginiana. Holly; *ilex aquifolium*. Swamp laurel; *magnolia acuminata*. Portugal bay; *laurus indica*. Catalpa; *bigonica catalpa*. Wild pimento; *laurus benzion*. Red bud; *cernis canadensis*. Sassafras; *laurus sassafras*. Common laurel of this country. Such numbers of lauri being found indigenous in America, it may not be amiss to hint at the pimento or jamaica pepper, as very proper to be introduced wherever it will be found to thrive, which would prove a very profitable article. All the south parts of Louisiana abound with the wild laurel, which grows in the woods without any cultivation: the same may be said of the stone laurel; but if a person be not on his guard, he may take for the laurel a tree natural to the country, which would communicate its bad smell to every thing it were applied to. Among the laurels the preference should be given to the tulip laurel [*magnolia*], which is not known in Europe. This tree is of the height and bulk of one of the common english walnut-trees. Its head is naturally very round, and so thick of leaves, that neither the sun nor rain can penetrate it. Its leaves are full 4 inches long, near 3 inches broad, and very thick, of a beautiful sea-green on the upper side, and resembling white velvet on the under: its bark is smooth and of a grey colour; its wood is white, soft, and flexible, and the grain interwoven. It owes its name to its great white flowers, which are at least 2 inches broad. These appearing in the spring amidst the glossy verdure of the leaves, have a most beautiful effect. As the top is naturally round, and the leaves are evergreen, avenues of this tree would doubtless be worthy of a royal garden. After it has shed its leaves, its fruit appears in the shape of a pine-apple; and, upon the first approach of the cold, its grain turns into a lively red. Its kernel is very bitter, and it is said to be a specific against fevers.—The sassafras, the name of which is familiar to botanists on account of its medicinal qualities, is a large and tall tree. Its bark is thick, and
cracked

cracked here and there ; its wood is somewhat of the colour of cinnamon, and has an agreeable smell. It will not burn in the fire without the mixture of other wood ; and even in the fire, if it should be separated from the flaming wood, it is immediately extinguished, as if it were dipped in water.

Cockspur ; *cratægus coccinea*. Red bay ; *laurus borbonia*. Dwarf rose bay ; *rhododendron maximum*. Spindle tree ; *euonymus americanus*. Alder ; *sambucus nigra*. Candleberry myrtle ; *myrica cerifera*. The myrtle wax tree is one of the greatest blessings with which nature has enriched Louisiana ; as in this country the bees lodge their honey in the earth, to save it from the ravages of the bears, who are very fond of it, and do not regard their stings. One would be apt to take it at first sight, both from its bark and its height, for that kind of laurel used in the kitchens. It rises in several stems from the root ; its leaf is like that of the laurel, but not so thick, nor of such a lively green. It bears its fruit in bunches like a nosegay, rising from the same place in various stalks about 2 inches long : at the end of each of these stalks is a little pea, containing a kernel in a nut, which last is wholly covered with wax. The fruit, which is very plentiful, is easily gathered, as the shrub is very flexible. The tree thrives as well in the shade of other trees as in the open air ; in watry places and cold countries, as well as in dry grounds and hot climates ; for it has been said that some of them are to be found in Canada, a country as cold as Denmark. This tree yields two kinds of wax, one a whitish yellow and the other green. It was a long time before they learned to separate them, and they were prepared at first in the following manner : They threw the grains and the stalks into a large kettle of boiling water, and when the wax was detached from them, they skimmed off the grains. When the water cooled, the wax floated in a cake at the top, and being cut small, bleached in a shorter time than bees-wax. It is now prepared in this manner :

They

They throw boiling water upon the stalks and grains, till they are entirely floated ; and, when they have stood thus a few minutes, they pour off the water, which carries the finest wax with it. This wax, when cold, is of a pale yellow colour, and may be bleached in 6 or 7 days. Having separated the best wax, they pour the water again upon the stalks and grains, and boil all together till they think they have separated all the wax. This wax is so brittle and dry, that if it falls it breaks into several pieces ; on this account, however, it is the more durable. It would be advisable for those who prepare this wax to separate the grain from the short stalk before they boil it, as the stalk is greener than the grain, and seems to part easily with its colour. The water which serves to melt and separate the wax is far from being useless. The fruit communicates to it such an astringent virtue, as to harden the tallow that is melted in it, to such a degree, that the candles made of that tallow are as firm as the common wax candles used in London. This astringent quality likewise renders it an admirable specific against the dysentery or looseness. From this brief account of the myrtle wax tree, it may well be believed that in Louisiana it is carefully cultivated and grown in plantations. M. le Page du Pratz had some seeds of the wax-tree brought him to Fontenai le Comte in Poictou, some of which he gave to several of his friends ; but not one of them came up. He began to reflect, that Poictou being by far not so warm as Louisiana, these seeds would have difficulty to shoot ; he therefore thought it might be necessary to supply by art the defect of nature : he procured horse, cow, sheep, and pigeon's dung, in equal quantities, all which he put in a vessel of proportionable size, and poured water on them, almost boiling, in order to dissolve their salts : this water he drew off, and steeped the grains in a sufficient quantity thereof for 48 hours ; after which he sowed them in a box full of good earth. Seven of them came up, and made shoots between 7 and 8 inches high ;

high; but they were all killed by the frost, from the omission of putting them into the green-house. This seed having such difficulty to come up, he presumes that the wax, in which it is wrapped up, hinders the moisture from penetrating into, and making its kernel shoot; and therefore he thinks that those who choose to sow it, would do well if they previously rolled it lightly between two small boards just rough from the saw; this friction would cause the pellicle of wax to scale off with so much the greater facility, as it is naturally very dry; and then it might be put to sleep.

Sumach; rhus; highly necessary in dying and tanning, which is much used in preparing turkey leather. Several kinds grow in the southern parts of America, and therefore it is worth our while to inquire into the matter, to know which kind is used for this purpose. The plant is also known in medicine. The large kind is employed to make into vinegar; and we are told by the French, that a piece of the wood put into a cask of weak or faded vinegar, or even water, will produce an intensely sharp vinegar. As a hint to travellers in the southern parts of America, where the distance between the settlements often obliges us to carry our provisions with us, they may be assured, that the fruit of this species, steeped a very short time in water, communicates to it a very agreeable acid flavour, which will render it very fit for making punch; which grateful beverage proves a great refreshment on a hot day, in the woods. Another kind possesses a noxious quality: this grows in low grounds; beware therefore of making spits of this to roast meat on, and take it for a general rule not to employ any wood (unless you are well acquainted with it) growing in low grounds, for that purpose, as almost all the noxious plants, of this country, are found in such situations. In high grounds you may indiscriminately use any wood (which has no bad taste) for that purpose.

Satin wood tree.

Coffee tree. Its culture throughout all the settlements where it is raised, is now by the young shoots obtained from the larger trees; but originally it was introduced by seed, which being soaked for about 24 hours, is then planted in tubs, pots, or beds, at about 3 inches distance, covered lightly with earth, and carefully watered when no rain happens to fall. The plant usually appears in about a fortnight; when the young plants have attained the height of 8 or 10 inches, a rainy day is watched to transplant them into a walk, as it is here called, and answers to the english orchards; the ground is here carefully cleared of all manner of roots and plants, and turned up at least a spit deep. About 12 feet is the distance that ought to be left between every two plants. The growth of coffee is quick, provided the ground be kept clean; but perhaps no plant is sooner hurt than this by too luxuriant a growth of weeds or plants round or near it. The second year eddos or taniers *, or even potatoes, may be planted among them; which will be a means of raising provisions by the same labour that is necessary to keep the ground clean. This plant bears fruit sufficient to defray the yearly expences at the end of the third year; its produce will then increase until the seventh year, and after this it will continue to bear in a degree nearly equal, until about the fortieth year of its age, when it begins to decay. If any of the young plants should fail, they ought immediately to be replaced by others. In the dutch colonies, when a coffee walk decays, they root out the trees, and let the ground lie fallow for 10 years, or upwards; during which time it affords pasture for cattle, and afterwards it is turned into a cocoa walk, or cotton plantation. The ordinary height of this tree is from 12 to 16 feet; in the dutch colonies they are lopped, to reduce them to a kind of espaliers, for the easier gathering of the fruit. When the coffee has attained to maturity, it is carried to drying sheds,

* Eddo or tanier is a species of esculent arum, well known in East Florida, and is good food for negroes.

which

which are constructed in the dutch colonies on the following plan : The area of the ground generally applied to this use is 70 feet by 30 ; a brick foundation of 4, 5, or 6 feet high, is first laid to raise the building from the ground ; on this the superstructure is placed of timber, being of two stories ; the upper floor being about 12 feet above the lower. In each side of the building are from 12 to 16 large windows, likewise 2 at each end, on either side of large doors ; all which is necessary to give a free access to the air, to prevent the coffee from heating or shooting. In the lower part of the building a kind of drawers, of about 6 feet square, are so contrived, as to be drawn without-side the building, where they rest in wooden rollers or blocks : these drawers receive the coffee after the drying floor, and in fine weather are drawn out, but pushed back the moment it begins to rain. By this contrivance a large quantity is, as it were, instantly sheltered from ruin ; no other invention can be so expeditious. The building must be furnished with 2 pieces of square timber, of the length of 25 or 30 feet, and about 18 or 24 inches thick, made of hard wood : in these a row of mortars is sunk, to beat the coffee in, pestles or beatles for the same, fanning mills to clean the coffee, shovels for turning it often while it lies on the upper floor ; a competent number of baskets, of different sizes, and a pair of scales with weights. Before this building there are generally one or two platforms, from 40 to 50 feet square, called drying floors, intended to take all benefit of the fine drying weather during the coffee harvest. Adjoining to the building is generally a smaller one, containing a cooper's shop and a mill, called a breaking mill, through which the new-gathered coffee passes, to deprive the grain of its pulp or red outer skin ; after coming from this mill, it is soaked during one night in water, and next day spread upon the drying floors, where it remains till the air and wind have

sufficiently dried it; if rain should happen to fall, it is quickly gathered into heaps, and covered with ear-cloth. The coffee, being thus dried, is put into the drawers, where it is left till thoroughly dry; from hence it is carried into the loft (being now surrounded only with a thin semi-transparent husk over each pair of seeds), where it is left till the whole crop is gathered; the harvest lasting frequently 2 months. While it remains in the loft it must be daily turned, to prevent its heating, and in good weather all the air possible must be admitted. After harvest it is again returned into the drawers, and left there for 3 or 4 days, in order to become totally dry; it is then pounded or beat in the above-mentioned mortars by hand, to deprive it of the thin inner husk, which involves every pair of seeds: after this it is fanned, and when fanned, the broken grains are separated from the whole; which last are put in bales, or casks, for the market. With all this seeming trouble a coffee walk is more easily attended than a sugar plantation, and is said to be full as profitable.

Dwarf laurel; *calmia latifolia*. American aloe; *agave virginica*. Ivy; *hedera quinquefolia*. Hemlock fir; *pinus canadensis*. Papaw; *annona triloba*. Trumpet honeysuckle; *lonicera semper virens*. Upright honeysuckle; *azalea nudiflora*. Juniper; *juniperus virginica*: grows only in the southern parts of the western country. Black oak; *quercus nigra*. White oak; *quercus alba*. Red oak; *quercus rubra*. Willow oak; *quercus phellos*. Chesnut oak; *quercus prinus*. Black-jack oak; *quercus aquatica*. Ground oak; *quercus pumila*. Live oak; *quercus virginiana*. The live oak grows only low down on the Mississippi, on this side of the mountain. It is found in such sufficient quantity, between the Mississippi and the river St. Joseph, as would be equal to build and support a navy superior to the maritime strength of all Europe combined together; and which

is acknowledged to be the most lasting and best calculated for ships of war of any kind of timber that has been used for that purpose.

Sugar tree; *acer saccharinum*: which is the common name throughout this country for the sugar maple.

Beech; *fagus sylvatica*. White ash; *fraxinus alba*. Black ash; *fraxinus nigra*. Elm; *ulmus americana*. Slippery elm. Sweet elm; *ulmus faccharina americana*. The elm, beech, lime, and hornbeam, are exactly the same as in France; the last of these trees is very common here. The bark of the lime tree of this country is equally proper for the making of ropes, as the bark of the common lime; but its leaf is twice as large, and shaped like an oblong trefoil leaf with the point cut off.

Buttonwood tree. Black birch; *betula nigra*. White birch; *betula alba*. Sweet gum; *liquidambar styraciflua*. The liquidambar, copalm, or maple-leaved storax, is not only extremely common, but it affords a balm, the virtues of which are infinite. Its bark is black and hard, and its wood so tender and supple, that, when the tree is felled, you may draw from the middle of it rods of 5 or 6 feet in length. It cannot be employed in building or furniture, as it warps continually; nor is it fit for burning on account of its strong smell: but a little of it in the fire yields an agreeable perfume. Its leaf is indented with 5 points like a star. The storax is produced by boiling the branches.

White pine; *pinus strobus*; grows only in the mountainous country. Yellow pine; *pinus virginica*, grows also in the mountains. Spruce pine; *pinus foliis singularibus*; grows mostly upon the precipices of river banks, upon the sides of high hills, and never in the champaign country.

Cypress; *cupressus disticha*. White cedar; *cupressus thyoides*; both grow in abundance in the country contiguous to the gulf of Mexico; but in the country high up the rivers, very few of them are to be found.

The best soil produces little timber but the locust, cherry, walnut, buck eye, sugar-tree, elm, beech, ash, satin wood, and papaw: the middle rate land oaks, hiccory, dogwood, some sugar trees, and beech. What we call indifferent land affords mostly black and red oaks, some hiccory, gum, &c. and the more broken and hilly country (I mean the worst land), black-jack oak, fir, &c.

There is a variety of shrubs in every part of the country, the principal of which are the myrtle and spice-berry; and a number of different kinds of grass, &c. that I am unable to describe; for indeed they have not all obtained popular names: and I am too ignorant of botany, as I have confessed, to attempt to class them; which, perhaps, is the finest field now open to a man of genius, in the science of botany, upon the face of the globe.

Buffon, Kalm, d'Aubenton, Catesby, and Pennant, have all touched upon the natural history of America. The first and last have confined themselves chiefly to the description of animals; and as they are justly admired for their talents, I shall confine myself merely to giving you a list of the wild animals which are common to the western country; and refer you to their works for the natural history. Such errors as Buffon had been drawn into by prejudice, Mr. Jefferson has ably confuted.

Buffalo, is common between lat. 42 and 37. Moose elk, to the north of lat. 43. Elk, round-horned, between lat. 40 and 36. Caribou, to the north of lat. 43. Red deer, to the south of lat. 40. Roe, to the north of lat. 40. Fallow deer, to the north of lat. 42. Bear, wild cat, and wolf, in every part of this country. Glutton, to the north of lat. 42. Lynx, to the south of lat. 40. Beaver, to the north of lat. 37. Otter, between lat. 45 and 36. Red fox, to the north of lat. 39. Grey fox, to the south of lat. 40. Hedgehog, to the north of lat. 40. Martin, to the north of lat. 38. Weasel, to the south of the lakes.

Water-

Water-rat, between lat. 42 and 36. Marmotte and flying squirrel, to the south of lat. 40. Fox squirrel, between lat. 39 and 36. Black squirrel, between lat. 39 and 42. Red squirrel, to the south of lat. 40. Great grey squirrel, to the north of lat. 38. Little grey squirrel, between lat. 38 and 32. Ground squirrel, between lat. 40 and 36. Mink, to the south of lat. 44. Shrew-mouse, to the south of lat. 43. Raccoon, to the south of the lakes as far as lat. 37. Opossum, to the south of lat. 41. Vison and skunk, between lat. 43 and 36. Congar and rabbit, every part of this country; but no where so numerous as on the other side of the mountain.—[N B. There is not a wild hare in all America.] Mouffette squash, and mouffette chinche, between lat. 43 and 36. Panther, to the north of lat. 33. Wood-chuck, between lat. 39 and 44. Porcupine, to the north of lat. 42. Dormouse, to the north of lat. 40. There are, besides moles, mice, and bats, several other animals in the extreme parts of the country. I have omitted saying any thing respecting them, as I could not do it with sufficient accuracy; but you will find in Mr. Jefferson's list of the aboriginal animals of America, an account of the whole of them.

I have already taken notice of the great bones which have been found in this country; but, as I was not minute as to the estimate of their size, I shall just remark, that it was the opinion of your celebrated anatomist, the late Dr. Hunter, from an examination of the tusks, that the mammoth was an animal entirely different from the elephant; and Mr. Jefferson, who seems to have examined the skeleton with curious attention, says: "the bones bespeak an animal of 5 or 6 times the cubic volume of the elephant, as M. de Buffon has admitted." And I have been informed by a gentleman who attended the lectures of Mr. Cline, in London, that this ingenious anatomist used to produce one

of the tusks of the mammoth, when he was lecturing, and declared that the animal must have been carnivorous.

In my account of the birds of this country, I shall mostly give you the Linnæan designation, in preference to *Catesby's*, though this latter is most general.

Bald eagle; *falco leucocephalus*. Turkey buzzard; *vultur aurea*. Sparrow hawk; *falco sparverius*. Forked-tail hawk; *falco furcatus*. Pigeon hawk; *falco columbarius*. Fishing hawk; *accipiter piscatorius*. Field martin. Little owl; *strix asio*. Tyrant martin or king-bird; *laninus tyrannus*. Perroquet; *psittacus*. Red-headed wood-pecker; *picus erythrocephalus*. Large red-crested wood-pecker; *picus pileatus*. White-bill wood-pecker; *picus principalis*. Gold-winged wood-pecker; *picus auratus*. Red-bellied wood-pecker; *picus carolinus*. Small-spotted wood-pecker; *picus pubescens*. Yellow-bellied wood-pecker; *picus varius*. Hairy wood-pecker; *picus villosus*. Blue jay; *corvus cristatus*. Crow blackbird; *gracula quiscalis*. Baltimore bird; *oriolis baltimore*. Bastard baltimore bird; *oriolis spurius*. Carolina cuckoo; *cuculus americanus*. Field lark. Red-winged blackbird; *sturnus niger alis superne rubentibus*: *Catesby*. Robin red-breast; *turdus migratorius*. Red thrush; *turdus rufus*. Mocking bird; *turdus minor cinereo albus non maculatus*: *Catesby*. Little thrush; *turdus minimus*: *Catesby*. Purple finch; *fringilla purpurea*. Lettuce bird; *carduelis americanus*. Cowpen bird; *passer fuscus*: *Catesby*. Little sparrow; *passerculus*: *Catesby*. Towhee bird; *fringilla erythrophthalma*. Blue linnet; *tanagra cyanea*. Painted finch; *emberiza biris*. Rice-bird; *emberiza oryzivora*. Snow-bird; *emberiza hyemalis*. Red-bird; *loxia cardinalis*. Blue gros beak; *loxia cærulea*. Crested fly-catcher; *muscipapa crinita*. Summer red-bird; *muscipapa rubra*. Red-start; *muscipapa ruticilla*. Cat-bird; *muscipapa carolinensis*. Black cap fly-catcher; *muscipapa nigrescens*. Little

the brown fly-catcher; *musficapa fusca*. Red eyed fly-catcher; *musficapa oculis rubris*. Blue-bird; *motecilla fialis*. Wren; *motecilla regulus*. Yellow-crested chatterer; *motecilla trochilus*. Whip poor Will; *caprimulgus minor americanus*: *Catesby*. Great bat, or goatsucker; *caprimulgus*: *Catesby*. House martin; *hirundo purpurea*. American swallow; *hirundo pelagica*. Yellow titmouse; *parus carolinienfis*. Yellow-throated creeper; *parus americanus gutture luteo*: *Catesby*. Hooded titmouse; *parus cucullo nigro*. Yellow rump; *parus virginianus*. Finch creeper; *parus americanus*. Crested titmouse; *parus bicolor*. Nut-thatch; *sitta capite nigro*: *Catesby*. Small nut-thatch; *sitta capite fusco*: *Catesby*. Humming-bird; *trochilus colubris*. Hanging-bird. Pine-creeper; *certhia pinus*. King-fisher; *alcedo alcyon*. Kildee; *charadrius vociferus*. Soree; *rallus virginianus*. Ground-dove; *columba passerina*. Wild pigeon; *columba migratoria*. Turtle-dove; *columba carolinienfis*. Lark; *alauda alpestris*. Night-hawk. Cat-owl. Screech-owl; *strix americana*: *Booth*. Crow; *corvus*. Crane; *ardea canadensis*. Whet-hawk. Great grey eagle. Feather-head turkey buzzard. Large pouch pelican. Raven. House-swallow; *hirundo rustica*: *Jefferson*. Ground-swallow; *hirundo riparira*: *Jefferson*. Cormorant. Squatting snipe; Whistling plover. Woodcock, or mud-hen. Yellow-winged snipe. Red bird with black wings. Wagtail. Wild goose; *anas canadensis*. Buffel-head duck; *anas bucephala*. Small brown duck; *anas rustica*. White-face teal; *anas discros*. Blue-winged teal. Green-winged teal. Summer duck; *anas sponfa*. Blue-winged shovler; *anas americanus cristatus elegans*: *Catesby*. Round-crested duck; *mergus cucullatus*. Pied-bill dopchick; *colymbus podiceps*. Large crested heron; *ardea herodias*. Crested bittern; *ardea violacea*. Blue heron; *ardea cœrulea*. Small bittern; *ardea virescens*. Small white heron; *ardea æquinoctialis*. Indian hen; *ardea stellaris americana*: *Catesby*. Wood pelican;

tantalus

tantalus loculator. White curlew ; *tantalus albus*. Brown curlew ; *tantalus fuscus*.

We have besides, the duck and mallard, widgeon, canvas back, wood duck, black duck, sprig tail, white-head duck, black-head duck, baldcoot, water pheasant, mow bird, blue peter, swan, loon, mountain pheasant, or grouse, which I mentioned in a former letter, quail, wild turkey, &c.

I have now, my dear friend, complied with your wish as far as it is in my power. A country so new and extensive requires more time, and more room, than a letter will admit of, to give you a complete idea of its natural history ; but, I flatter myself, it will afford you a general idea upon the subject ; and when the unfolding covers of a new creation, just bursting from the womb of nature, shall draw men of science to trace and investigate the various phænomena which this country exhibits, I have no doubt but the world will receive much pleasure and instruction.

The moment I have been able to collect an accurate account of the present numbers of the different tribes of Indians, which have hitherto been considerably exaggerated, I will write to you upon the subject. In the mean time I shall remain,

Your true and affectionate friend.

THIS globe, the earth which we inhabit (says governor Pownall), is, in its natural state, in a continued progress of exsiccation, and is universally, wherever the waters do not prevail, covered with woods ; so that, viewing this great continent America (as yet a new world to the land-workers of Europe), we see it a country of woods and lakes, or rivers. Except where the land is worn to the bone, and nothing remains on the surface but bare rocks, every soil, even the poorest, has its peculiar clothing of trees or shrubs.

There

There are spots here and there scattered over the face of this country, which, seen amongst the woods from a distance, seem as though they were plains of cleared land ; but these are covered with a species of dwarf or shrub oak, which grows about the height of a man's shoulder, and bears very good acorns. There are also in many, I might say most, places, between the banks of the rivers and the hills or mountains, through which these rivers run, margins of rich meadow land clear of trees : this peculiar state is owing to the annual inundations that these meadows are covered with, and to a constant accretion of soil which is left on the surface after the waters retire ; these the settlers call by a very expressive name, *interval lands*. In some parts, as on the Mohawk and Connecticut river, these interval lands are of a soil so rich, that they may be tilled ; some have been tilled incessantly for a century or more, and yet continue as rich as the vale of Egypt itself. I know (continues he) but of one place which is totally without trees, and that is a tract of land upon Long-island, in New-York province, called Jamaica or Hempstead plain, on which a shrubby kind of heath only grows.

The particular kind of tree that grows in each tract is always determined by the peculiar soil or nidus which is suited to produce it in preference to other species. This does not exclude other species also growing at the same time ; but some one species always predominates in each tract : the soil, therefore, is best known, and always described, by the european settlers, from its peculiar vegetation, as, oak-land, birch, beech, or chestnut-land ; pine-barren, maple swamps, cedar-swamps. Walnut or hickory, firs, white and red elm, magnolia, locusts, sassafras, and various other trees, are mixed with all these.

The fruits which grow wild, as far as Mr. Pownall's observations went, he gives us from his journals. The wild vine of different sorts, which in general produce a very small

small, four, thick-skinned grape ; but the vines are in their growth luxuriant beyond the conception of those who have not seen them. The wild cherry, a tree of which I saw, says our author, near Senectady, appeared to me one of the largest trees I ever saw. Mulberry, red and white ; but these latter are scarce. Hickory, or walnuts of various kinds, hazel, wild prune or plum, chestnuts of different sorts, wild pear and crab, a kind of cervice or medlar, bilberry, gooseberry, and strawberry. The individual trees of those woods grow up, have their youth, their old age, and a period to their life, and die as we men do : you will see many a sapling growing up, many an old tree tottering to its fall, and many fallen and rotting away, while they are succeeded by others of their species, just as the race of man is : by this succession of vegetation, this wilderness is kept clothed with woods just as the human species keeps the earth peopled by its continuing succession of generations. As it happens to man in the course of fate, that sometimes epidemic distempers, deluges, or famine, have swept whole nations off at once, so here, by a similar fate, epidemic distempers, to which even the forests are liable, fire and hurricane, have destroyed whole tracts of woods at once. Wherever this at any time has happened, one sees a new generation bearing all the appearance of an european new plantation growing up. If the soil has suffered no great change, woods of the same genus arise ; if it has undergone any change, either for the better or for the worse, then, as from a nidus, prepared from a new brood, from a new power of vegetation, we see woods of a different species, which before rarely appeared, and as aliens in the place, now springing up, and possessing the land as the predominant wood.

If here (continues our sagacious observer) I should attempt to describe the colouring of these woods, I should be at a loss what season of the year to choose, whether the sober harmony of greens that the woods in all their various tints display

display in summer, or whether the flaunting blush of spring, when the woods glow with a thousand hues that the flowering trees and shrubs exhibit. If the painter would attempt the real and accurate portrait of these woods in autumn, he must mix in upon his canvas all the colours of the rainbow, in order to copy all the various and varied dyes which the leaves at the fall assume: the red, the scarlet, the bright and the deep yellow, the warm brown, the white, which he must use, would produce a prismatic motley patchwork, from which the eye would turn away, and which the judgment would not bear; and yet the woods in this embroidered garb have in real nature a richness of appearance beyond conception. But this is not the only instance; there are many wherein nature will not bear a portrait, and wherein she is never less imitated than when she is attempted to be literally copied.

LETTER XI.

MY DEAR FRIEND,

Kentucky.

YOU will, no doubt, have heard of the defeat of our army, with the particulars, before this will reach you. It is surprising, that the experience of upwards of 30 years warfare with the Indians, should not have taught us before now, that our success or loss in these rencontres was to be expected alone from the abilities or talents of the commanding officer.

From the time of the defeat of general Braddock to the present period, the Americans have been successful or unsuccessful in these expeditions, in the exact proportion to the knowledge which our generals have had of indian dexterity and stratagem.

No man is more willing to allow to general St. Clair the merit of being an accomplished gentleman, a brave and judicious officer, than I am. But I cannot help lamenting, at the same time, that men are not employed upon these occasions (when there are so many in the United States), who have from their infancy been accustomed to such perils, and practised in the necessary vigilance, to ward off the effects of that singular prowess of those heroic people.

There is an error somewhere. I am afraid that our general confided too much in the comparative strength and discipline of his army. It would have been better if he had recollected an expression of the late king of Prussia: "However well founded any good opinion of ourselves may be, security in war is always dangerous; and rather than be negligent, it is better to take superfluous precaution." Our army certainly was taken by surprise. They had not time to form when the enemy commenced their attack, which proves the justness of that great soldier's reflection*.

Every

* Since this letter was written, I have been able to ascertain more particularly the object of the expedition conducted by general St. Clair, and the cause of his being defeated.

By the treaty, in which Great Britain acknowledged the independence of the United States, it was stipulated and agreed to by Great Britain, that the fortresses of Niagara and Detroit should be delivered up to the United States as immediately as it could be done with convenience. Whether it proceeded from the representations made by the government of Canada to the ministers of Great Britain, or not, I cannot presume to determine; but it is certain those places are properly considered of more importance than was at first imagined by the British court; and it is an indubitable truth, the moment they are possessed by the Americans, that instant the English fur trade of Canada will be reduced more than one half of what it is at present.

This declaration, as it comes from an American, may be considered as impolitic; but I have thrown it out purposely to shew how little the faith of treaties is to be depended upon, when they are found to clash with the important interests of the contracting parties; and as I consider every species of policy, which has not integrity for its basis, mean and contemptible.

As the United States had waited more than 7 years in expectation that

Every man who engages in the perilous vocation of a soldier, ought to recollect beforehand, the sacrifices he will be obliged

that the british government would fulfil this engagement, and finding it was not then convenient for them to abandon those forts, they determined to establish a garrison at the mouth of the Miami of the lake, which was to have been supported by a chain of communication with Pittsburg, and the acquisition of this purpose was the object of this expedition.

Fort Washington, at the mouth of the Muskingum, and fort Jefferson, between the head waters of the Sciota and St. Mary's river, which empties into lake Erie, a short distance from Sandusky, had been previously established; and the next object was to establish a third, south-east of Sandusky, upon those ridges of hills where the waters of the lake, and those of the Ohio, take different directions.

Had this plan been effected, though the Indians might at times have harassed those posts, still the purpose for which they would have been created must have answered; as it is impossible for them to carry on their attacks regularly, or for any length of time, by reason of their desultory manner of living; and thus, by our becoming permanently fixed upon the lake, we should at once have given a decided blow to your trade in Canada; for it was the intention of the federal government, not to permit any person to trade within the limits of the United States in that quarter, without a written privilege for that purpose, signed by the president of congress.

The army of general St. Clair, which was to have achieved this arduous end, amounted to about 1400 men, great part of which were militia; and most of the others, inconceivable as it may appear, were recruited from the sea-port towns upon the Atlantic; and of course were composed of men who were totally unacquainted with the indian manner of fighting;—indeed a large proportion of them were Europeans.

General St. Clair had advanced between 20 and 30 miles in front of fort Jefferson in his course toward lake Erie, when about 60 of the militia deserted, with an intention to return to their respective homes; after whom he dispatched 300 of his men, they consisting of the only old troops he had in his army; and it was in the absence of this detachment, that his army was attacked, just at the break of day; after the troops, most imprudently, had left the parade at which they had been some time before it was light, according to the custom in indian war, though his out-posts had been attacked incessantly during the whole night, and several of his centinels killed. The Indians, finding the army was thin of their guard, rushed upon them with such impetuosity, as to prevent their being able to form, or to act with any vigour or precision.

This

obliged to make of pleasurable indulgence, and, in many instances, of his constitution. But when a service of danger calls him to the defence of his country, or to avenge the insults which tyranny or barbarism has offered, it becomes ignominious, not cheerfully to forego every gratification which is incompatible with heroism. It is equally ignominious to put any consideration in competition with the certainty of success.

I know that it has been much the case with us to relax in discipline for fear of harassing our men. In indian wars it is necessary to observe this rule, which infallibly leads to victory when the combat otherwise is upon an equal footing. —Never be surprised. To prevent which, it is only necessary to move with strong and active flanks, to keep powerful and vigilant guards, and to have your whole army under arms every morning at least an hour before break of day; which will effectually prevent a surprise, as the Indians

This grand object has not been abandoned by the federal government; and for the purpose of carrying it into execution, by measures more wise, and means more certain, than had been pursued hitherto, 3000 federal troops, with a legion of 1200 horse and foot, are to be kept in continual pay; and while the different garrisons are to overawe the Indians, the legion is to scour the country round, so as to secure the settlements on the west side of the Ohio from their attacks, and thus by progressive and permanent establishments ward off the dangers of irregular and predatory warfare.

This system has already produced a very important effect:—the more intelligent indian chiefs are so perfectly sensible, that it is now in vain for them to contend against a palladium, which is daily invigorated by the current of emigration, which, like a perennial plant, shews no signs of decay, that they have promised to punish those audacious fugitives, who murdered our commissioners that were going to their nations for the purpose of offering them peace; and have also agreed to a cessation of hostilities while the preliminaries are settling; so that I have no hesitation in declaring it as my opinion, that, if the present measures are pursued with wisdom and vigour, there will be a speedy end to war and massacre in that quarter, and the whole western country must then enjoy that repose, which has so often and so fatally been disturbed by the incendiaries both of Canada and Louisiana.

never

never attack when their enemy is in force during the night. Move in compact order, and though you may be harassed in a degree, yet with an army of 2000 men well appointed, it would be no difficult matter to pass through the whole western country.

I hope I have not appeared too strenuous in endeavouring to wipe away the stain which our recent defeat has brought upon the valour of my countrymen. There has appeared a languor in the execution of our measures respecting indian affairs, which has not only brought an obloquy upon the wisdom of our councils, but has subjected us to losses that are as baneful to our population, as they are affecting to our sympathy.

Many of us have cause to mourn the loss of some friend, or dear relation. Among the slain was a youth of the most promising hopes and splendid talents—talents which might have proved ornamental to his country, and useful to mankind.

I know you will excuse me for appropriating to the death of my young friend, with a slight alteration, those beautiful lines in the Iliad with which Homer describes the death of Euphorbus :

As the young olive, in some sylvan scene,
Crown'd by fresh fountains with eternal green,
Lifts the gay head, in snowy flow'rets fair,
And plays and dances to the gentle air ;
When, lo ! a whirlwind from high heav'n invades
The tender plant, and withers all its shades ;
It lies uprooted from its genial bed,
A lovely ruin now defac'd and dead :
Thus young, thus beautiful, " brave Marshal" lay,
While the fierce " Indian" tore his life away.

The expedition conducted under the command of general Scott terminated with success. Indeed, from the first settlement of Kentucky, not one of our expeditions has

failed. The watchful Indians, who are always near us, and scarcely ever to be discovered but in force, observe the motions of our army, and readily determine from our vigilance, whether an attack will prove hazardous to them or not.

I shall begin my enumeration with the southern Indians, and proceed with those of the greatest proximity; taking care to comprehend in the schedule the various tribes that we have any distinct knowledge of to the northward of the chain of lakes, which bounds our empire to the north, and those to the west of the Mississippi, and south of the Missouri.

Cherokees; in the country between the great bend of the Tennessee, and the ridges of hills which are called the Alleghany mountains, the western limits of Georgia, and the eastern branches of the Mobile, in number 2500.

Chactaws, between the said great bend, the Mississippi, and Natchez, 6000.

Upper Creeks, between the head branches of the river Apalachies, East Florida, the Cherokee nation, and the Mississippi, 2500.

Lower Creeks, between the upper Creeks and the gulf of Mexico, 1000.

Natchez, a little to the east of the Natchez, 100.

Alibamons, between the Natchez and New-Orleans, 400.

Chekafaws, between the southern limits of Cumberland, the Chactaw nation, and the head waters of the Mobile, 500.

Lezars, between the mouth of the Ohio and Wabash, 300.

Piankishas, Vermilions, and Mascoutins, between the Wabash and Illinois, 600.

Illinois, near Cahokia, 260.

Kaskaskias, near Kaskaskia, 250.

Pianrias, upon the Illinois river, 400.

Skakies, near fort Oniatonon, upon the Wabash, 170.

Upper

Upper Piankishas, near fort Oniatonon, upon the Wabash, 300.

Oniatonons, near fort Oniatonon, upon the Wabash, 260.

Miamis, near fort St. Joseph, 200.

Twigtwees, upon the great Miami river, near fort Miami, 200.

Wyandots, between fort St. Joseph and Detroit, 200.

Cohunewagas, near Sandusky, 200.

Mingoes, on a southern branch of the Scioto, 50.

Mohiccons, between the Scioto and Muskingum, 40.

Shawnees, on the head branches of the Scioto, reduced by the late action to less than 250.

Delawares, in the country between lake Erie and the head branches of the Muskingum, who have also suffered in the late different actions, and it is supposed they are reduced from 600 to 450.

Delawares, or Linnelinopies, at different villages upon the north branch of the Susquehanna, 400.

Aughquagahs, upon an eastern branch of the Susquehanna, 150.

Nanticocs, between Owegy and the most eastern branch of the Susquehanna, 80.

Mohiccons, between Chagnet and Owegy, upon a branch of the Susquehanna, 70.

Conoies, between Utsanango and Chagnet, to the eastward of the easternmost branch of the Susquehanna, 40.

Saponies, upon a north branch of the Susquehanna, 30.

Munfies, at Diahago, upon the north branch of the Susquehanna, 120.

Senegas, upon the waters of the Ohio, lake Erie, lake Ontario, and Susquehanna, 550.

Cayugas, upon the Cayuga, and near the north branch of the Susquehanna, 180.

Onondagoes, near Onondago, 200.

Oneidas, on the east side of Oneida, and head branches of the Susquehanna, 250.

Tuscaroras, between the Oneidas and Onondagoes, 170.

Mohocks, upon the western branch of Mohock river, 140.

The last mentioned six tribes constitute what are known by the name of the Six Nations.

Orondoes, near the Three rivers, 100.

Abenakies, near the Three rivers, 150.

Little Algonkins, near the Three rivers, 100.

Pouteotamies, between St. Joseph's and Detroit, 270.

Ottawas, near Detroit, 500.

Chippawas, on Saguinam bay of lake Huron, 200.

Ottawas (a different tribe), on Saguinam bay of lake Huron, 150.

Chippawas (several tribes of), near Michillimackinack, fort St. Mary's, on lake Superior, and upon the southern shores of that lake, 5500.

Shakies, Pauns bay, on lake Michigan, 400.

Mynomamies, near Pauns bay, on lake Michigan, 300.

Ouisconsings, Ouisconsing river, 300.

Kickapous, upon the southern head branches of the Mississippi, and the waters of lake Michigan, 200.

Otogamies, between the lake of the Wood and Mississippi, 300.

Mascoutens, on lake Michigan, and between that and the Mississippi, 400.

Miscothins, between lake Michigan and the Mississippi, 340.

Outimacs, between lake Michigan and lake St. Clair, 200.

Musquakies, upon the southern waters of lake Michigan, 200.

Sioux, on the eastern head branches of the Mississippi, and the islands of lake Superior, 500.

Otta-

Ottagaumies, on the head waters of the Mississippi, 300.

Winnabagoes, on the head waters of the Mississippi, 200.

Killistinoes, on lake Superior, 250.

Naudowesies, between Michigan and lake Superior, 500.

Osevegatchies, near Swagatchy, on the river St. Lawrence,

100.

C on nasedagoes, near Montreal, 90.

Cohunnewagoes, near Montreal, 150.

Michmacs, on the river St. Lawrence, 500.

Ameliftis, on the river St. Lawrence, 400.

Chalas, on the river St. Lawrence, 100.

Nipissins, near the head waters of the Ottawas river, 300.

Algonquins, towards the head waters of the Ottawas river,

250.

Round-heads, on Rivière aux têtes boules, or Round-head river, 2000.

Messafagues, between lake Superior and lake Huron, 1500.

Kris, upon lake Christineaux, 1200.

Affinaboes, lake Affinaboes, 1200.

Barbus, or Blancs, between lake Affinaboes and the lake of the Wood, 1400.

Sioux of the meadows, on the head and western branches of the Mississippi, 2500.

Sioux of the woods, on the head and western branches of the Mississippi, 4000.

Sioux, between the head waters of the Mississippi and Missouri, 3000.

Ajoues, north of the Padoucas, 1000.

White Panis, south-east of the Missouri, 1500.

Speckled Panis, south of the Missouri, 1200.

Padoucas, south of the Missouri, 500.

Grandeseaux, south of the Missouri, 800.

Canfes, south of the Missouri, 1000.

Osages, south of the Missouri, 400.

Misouris, on the Misouri, 1500.

Arkansas, on the river Arkansas, 1000.

There are several other tribes, known by the name of *Caouitas*, *Linways*, *Webings*, *Oufasoy*s, *Les Puans*, *Folle Avoine*, *Mineamis*, &c. But the different tribes have been so confounded one with another, that it is impossible to collect any distinct information respecting their situation or numbers; which I apprehend has proceeded from the imperfect knowledge travellers have had of the west of the Mississippi, and to the north of lake Michigan and lake Superior; and which has precluded the possibility of gaining any accurate intelligence from them. However, the above list has been corrected from the accounts of *Croghan*, *Boquet*, *Carver*, *Hutchins*, and *Dodge*, and by the comparative testimony of the best informed men I have been able to meet with; and whose knowledge upon this subject, though they have not written, I should prefer to either of the above authorities, who were obliged to take the greatest part of what they have related, from hearsay, or proceed upon conjecture.

There are several vagrant tribes, called *Chiakanessou*, *Onanakina*, *Machecous*, and *Souikilas*, from the *Cherokees*, *Chactaws*, and *Creeks*; but I should suppose, these included, that my account of those tribes is tolerably exact.

By this list, which I presume will appear as accurate as the subject will admit of, the aggregate numbers of Indians will be found less than 60,000 who inhabit the country from the gulf of Mexico, on both sides of the Mississippi, to the gulf of St. Lawrence, and as far west as the country has been explored; that is, to the head waters of the Mississippi, and from thence to the Misouri (I do not mean the head of it), and between that river and Santa Fé.

I have been able to learn very little information respecting the Indians between Santa Fé and the gulf of Mexico, and still less of those who inhabit the country between the river
St.

St. Joseph's and California. However, we are in no way affected by them at present ; and it is not very likely that we ever shall : for it is to be presumed, that the federal government, in the extension of its empire, will take such precautions as must prevent the horrors of that sanguinary warfare and massacre, which have hitherto marked the progress of its growth.

Certainly it is time that decided measures were taken ; if possible, to civilize them ; and if not, to confine them to particular districts ; that is, by the vigour of our measures, to shew them that we are not to be trifled with ; and, whenever a tract of country is to be settled, let the demarkation be obvious, and the terms of settlement definitive ; and by affording protection to the pacific, and chastising the licentious, it may be expected in time, that some amelioration will take place in their savage and sanguinary dispositions.

You will observe that the most numerous tribes are at the greatest distance from us ; and it is very certain, that in proportion to their distance from the whites, they are unacquainted with the use of fire-arms. All the nations north of lake Superior, and those beyond the Mississippi, as well as those on the Missouri, use only bows and arrows ; so that when you take a view of their scattered situation, the various customs and superstitions which it is necessary to reconcile, in order to produce perseverance and unity of action, and what a small proportion of them have the apparatus, or understand the use of musquetry, or possess resources sufficient to enable them to carry on lasting hostilities against the power of our increasing numbers ; it must be obvious, that even our defeats will hasten their ruin.

Though we (or rather the federal troops) have been defeated several times, yet we shall soon establish a permanent security against savage invasions and massacres ; for though we have not acted entirely like Hercules, who destroyed the serpents while an infant in his cradle, still, I presume, we shall do it in our approach to maturity.

The French, by conciliating the manners of the savages, and by their diffusing a more general knowledge among them of the use of fire-arms, first rendered them formidable to the whites. The animosity continued to exist until the commencement of the late war, *when that very policy was practised by the English, which they had formerly so severely reprobated in the French.*

In the various skirmishes and actions which have been fought between us, they have acquired a most wonderful dexterity and heroic intrepidity; but, in these acquisitions, they probably have laid the foundation of their own *extinction*: for our defeats but add to our strength; and when you recollect their comparative numbers with ours, and the comparative fecundity of our women, I think the circumstance does not appear problematical.

However, that is not our wish. We would gladly teach them the blessings of peace; and so far did the assembly of Virginia carry this disposition, in the year 1784, that, the more effectually to accelerate so desirable an end, they took it into consideration to pass an act offering bounties to such men and women as would intermarry with the Indians. But as the animosities which then existed between them and the back settlers had arisen to such a height, it was thought most advisable to postpone it until there should be a stable peace, and till the whites and they were reconciled; but that never will be the case until we are in possession of Niagara and Detroit. Farewell.

A LETTER from major Jonathan Heart, to Benjamin Smith Barton, M. D. &c. containing observations on the ancient works, the native inhabitants, &c. of the western country.

SIR,

Fort Harmar, Jan. 5, 1791.

AGREEABLY to promise I now enter on the different subjects of inquiry contained in your favour of the

24th of January last; but find myself unable to give that satisfactory information which the nature of your work may probably require: however, such observations as opportunity has enabled me to make, I am happy in laying before you.

With respect to ancient works: those at the mouth of the Muskingum are the only vestiges of any considerable works I have very particularly attended to, are published in the Columbian Magazine. Those remarks not having been made under an expectation of their being published, were not so accurate as I could now wish they had been; but improvements having since been made over the whole extent of the works, no very considerable investigation has taken place. We did at that time open the big mound and some of the graves, dig into the caves, on the walls, elevated squares, and at different places within the compass of the works; but nothing was found more than I mentioned in those remarks.

The works at Grave creek I have carefully viewed, but never traced the lines with such accuracy as to enable me to give you a plan. They are very extensive, commencing about 4 miles below Grave creek, and continuing, at intermediate distances, for 10 or 12 miles, along the banks of the Ohio. The principal works are adjoining the big grave, which is about half a mile from the Ohio, and about the same distance north of the mouth of Grave creek. The works are very similar to those at the mouth of Muskingum. The continuation of works each way consists of square and circular redoubts, ditches, walls, and mounds, scattered at unequal distances, in every direction, over extensive flats. The big grave, so called, has been opened, and human bones found in it; but not of an extraordinary size; neither have I ever heard of bones of an extraordinary size being found in any of those graves, many of which have been opened, and generally found to contain human bones.

These are the only considerable remains which I have
myself

myself examined. The common mounts, or indian graves, or monuments (for they are not always found to contain bones), are scattered over the whole country, particularly along the Ohio, and its main branches: indeed, I have scarcely ever seen a handsome situation on a high flat, adjoining any large stream, where there were not some of the above-mentioned vestiges of antiquity.

Travellers, on whose authority I depend, inform me, that, on a branch of the Scioto, called Paint creek, are works much more considerable than those at Grave creek, or Muskingum, a mount much larger, a greater variety of walls, ditches, and enclosures, and covering a much greater extent of country; that they continue for nearly 60 miles along the Scioto to its junction with the Ohio, opposite which, on the Virginia side, are extensive works, which have been accurately traced by col. George Morgan; and I have been told that there are remains of chimnies, &c.

The next works of note are on the great Miami, about 20 miles from its junction with the Ohio. A Mr. Wells, a gentleman of very nice observation and philosophical inquiry, who had viewed them, and had also examined the works at Muskingum, informed me they were very similar, though he thought these more extensive, the walls higher, and the ditches deeper than those of Muskingum. He also observed, there were similar works on the little Miami about 20 miles from its junction with the Ohio, which would be about the same distance from the remains last mentioned.

These are the only traces of ancient works of which I have received such authentic information as will justify me in reporting them as undoubted facts. Many other remarkable vestiges of antiquity have been described to me, particularly on the east side of a small branch of the Big-black, a river which empties itself into the Mississippi, nearly in latitude 33 north, an elevation of earth about half a mile square, 15 or 20 feet high, from the north-east corner of which a wall
of

of equal height, with a deep ditch, extends for near half a mile to the high lands. This information I had from the Chaſtaw Indians, who inhabit that country, and it is confirmed by many white people, who reſided with the Chaſtaws, and had often been on the ſpot.

The tradition of the Chaſtaws with reſpect to this elevation is as follows: That in the miſt is a large cave, which is the houſe of the GREAT SPIRIT; that in that cave he made the Chaſtaws; that the country being then under water, the great ſpirit raiſed this wall above water, to ſet the Chaſtaws on to dry, after they were made.

The ſame perſons and others aſſured me, that on the low grounds of the Miſſiſſippi, which are ſubject to overflow, at a place called Bio-piere, is a very large mount, encompassed by a number of ſmaller ones, in a perfect circle, at equal diſtances from each other, and at about 200 yards from the centre, or grand mount. Theſe circumſtances I have the more reaſon to believe, as every information aſſures me that country is covered with veſtiges of ancient ſettlements: as far ſouth of the head waters of the Yazoo and Mobile, my own obſervations confirm it.

Who thoſe inhabitants were, who have left ſuch traces; from whence they came, and where they now are; are queries to which we never, perhaps, can find any other than conjectural answers. I can only give my opinion negatively, that they were not conſtructed by Ferdinando de Soto. He was not on the continent a ſufficient time to conſtruct even the works at Muſkingum; and from every circumſtance it appears that he was no farther north than Chattaſallai, a Chickaſaw village on the Tombigbee branch of the Mobile. Secondly, theſe works were not conſtructed by any european, aſian, or african nation ſince the diſcovery of America by Chriſtopher Columbus: the ſtate of the works, the trees growing on them, &c. point to a much earlier date. Thirdly, they were not conſtructed by the preſent Indians, or their
pre-

predecessors ; or some traditions would have remained as to their uses, and they would have retained some knowledge in constructing similar works. Fourthly, they were not constructed by people who procured the necessities of life by hunting : a number sufficient to carry on such works never could have subsisted in that way. Fifthly, I may venture to add, the people who constructed them were not altogether in an uncivilized state : they must have been under the subordination of law, a strict and well-regulated police, or they could not have been kept together in such numerous bodies, and made to contribute to the carrying on of such stupendous undertakings. But my business is to give you facts, and not to form conjectures.

There are other matters with respect to this country worthy of attention ; such as, the quantities of shells, concretions, petrifications, bones, &c. the marks of high water, and the natural meadows. On the head waters of the Mobile is the true oyster-shell, of a monstrous size, and in such quantities that I cannot conceive them to have been transported from the sea, which is 300 miles off. The Chickasaws say these shells were there when they came into the country. They use these shells in making their earthen ware. The fossil shells are found in great plenty in all parts of the country ; and petrifications are very frequent, particularly at the falls of the Ohio. Near the bottom of the falls there is a small rocky island which is overflowed at high water. This island is remarkable for being the seat of petrifications. I saw no petrifications on it myself but wood, fish-bones, and the roots of shrubs which grow on the island : of these there was a great abundance. Gentlemen who have resided near, and whose veracity is not to be doubted, assured me, that they had seen very different articles petrified, as part of a hornet's nest, fishes, and in one instance an entire bird. But, what is more particularly to be remarked is, that this petrifying quality is confined to the island, and
does

does not so frequently afford samples of it on the opposite shores ; yet there is no spring of running water, and scarcely a green thing on the island. Neither does this quality exist, in any remarkable degree, either above or below the falls. There is a like instance up the Tenaſee, of a particular spot, extraordinary for petrifications, while nothing of the kind is observable either above or below.

The big bones, found at a place called Big bone lick, are now to be ſeen in the various muſeums of the ſtates. It is unneceſſary for me, therefore, to make any remarks on them. At port Lewis, on the Miſſiſſippi, I ſaw a number of gentlemen who had travelled up the Miſſouri ; they ſaid, there are many of theſe bones to the weſtward, and the Indians told them the animal was ſtill to be found farther weſt.

The natural meadows cannot be accounted for : ſome of them have, doubtleſs, emerged from the waters of the Miſſiſſippi ; which I preſume was an arm of the ſea, ſome diſtance above the mouth of the Ohio. Other of theſe meadows appear to have been lakes, the waters of which, in proceſs of time, finding ſome outlet, have become dry lands. But ſome of theſe meadows are high lands, ſurrounded by an extenſive timbered country, in many places much lower than the clear lands. Major Wylls informed me that he had the moſt unequivocal proof, from the appearances of rocks and other veſtiges a little above the mouth of the Miſſouri, that the waters of the Miſſiſſippi had, in paſt ages, flowed 70 feet higher than the preſent high-water marks. On the Frenchbroad river, a branch of the Tenaſee, are perpendicular rocks, on which, more than 100 feet above the preſent high-water, are artificial characters of beaſts, birds, &c. A Mr. Williams, a gentleman of reputation, aſſured me, that he had been at the place, and that there could be very little doubt of the characters being artificial, and that it was abſolutely impoſſible that any perſon could get to the ſpot on any other ſuppoſition, than that the

waters of the river had, at some time, flowed so much higher.

With respect to the populoufness of the natives, I cannot give you any fatisfactory account; and from whence they came it is still more difficult to determine. The Chickafaws say they came from where the fun sets in the water, and that they were 7 years on the way, marching only 1 moon in a year, remaining the other part of the time at the same camp, preparing for the next year's march. The fimilarity between their language and that of the Chaftaw evidently proves that they are from the same origin. The languages of the different tribes of the Six nations are also very fimilar to each other, as are the languages of many of the western nations, and the Creek nations, or Muscows, *with very little alteration Muscovites*. But the languages of the Six nations, the western nations, and the Chickafaws, are so different even in found and in construction, that they never could have been derived from, or any way dependent on each other.

With respect to their customs and manners, I am equally unable to give you any fatisfactory information. I cannot help thinking it a great misfortune, that no measures have ever been taken which held out a sufficient inducement for men of abilities to travel amongst the tribes which are so far removed from the natives of Europe, that we might be assured their customs were not borrowed from, or any way intermixed with ours. It is equally a misfortune that we are suffering so many of their languages to become extinct, without preserving their radical characteristics: for there is a certain characteristic peculiar to different languages, not dependent on each other, which, though disguised with a variety of sounds, or different dialects, on accurate examination will give some grounds to conjecture from what language they are derived; and I cannot help thinking that a full investigation of the different languages of the nations will be the most probable means for forming reasonable conjectures

jectures from whence this continent was peopled. A knowledge of their customs and manners might also give us some light. Those, however, who argue that the Indians are descended from the ten tribes of Israel, from a similarity of some customs, do not consider that the Israelites were but little removed from a state of nature; that nature is uniform, and that all things being equal ever operate the same. It is true that many customs of the Indians are the same with those of the Israelites: but they were such as nature herself pointed out.

As to the genius of the Indians, I believe they are as capable as any other nation in learning any art, either mechanical or liberal. Indeed, I never could find that they possessed any original ideas different from our own, or had any bias of mind, propensity to particular vices, or predominancy of any passion, which could not be traced to their origin in the human mind, and be found to arise from the different stages, between the absolute state of nature and the highest degree of civilization: in fact, we find them possessed of every passion, propensity, and feeling of man.

With regard to the arts of the ancient inhabitants, there is very little ground for us to draw conjectures from. I wish measures had been early taken to collect and preserve the different articles which have been found in different places; and that all other, artificial as well as natural curiosities, together with accurate descriptions of all the vestiges of antiquity, could have been collected and preserved. Perhaps, from the whole, some future inquiries might have led us to an investigation of the history of this country.

I might have added a great number of informations, from travellers, concerning various tribes of Indians; their customs, their languages, &c. such as that there are Indians who speak the welsh language; that there are others who live in works similar to the ancient remains already described; that there are Indians who live a shepherd life, and others

others who entirely devote themselves to the cultivation of the soil. But I have not such full assurance of the truth of these matters as to authorise me to report them.

I have thus, according to the best of my abilities, given every information in my power, on the various inquiries in your favour. I have little expectation of there being any thing new in them, or which will give light on the subjects; but such as they are, please to accept them as my earnest endeavours to serve you. With every sentiment of respect,

I am, Sir,

Your's, &c.

JONATHAN HEART.

DESCRIPTION of a remarkable rock and cascade near the western side of the Youghiogeny river, a quarter of a mile from Crawford's ferry, and about 12 miles from Union town, in Fayette county, in the state of Pennsylvania. By Thomas Hutchins.

THIS cascade is occasioned by a rock of a semicircular form, the chord of which, from one extremity of the arch to the other, is nearly 100 yards: the arch, or circular part, is extensive, and upwards of 20 feet in height, exhibiting a grand and romantic appearance. This very curious production is composed of stone of variegated colours, and a species of marble beautifully chequered with veins running in different directions, presenting, on a close inspection, a faint resemblance of a variety of mathematical figures of different angles and magnitudes. The operations of nature in this structure seem to be exceedingly uniform and majestic; the layers or rows of stone of which it is composed are of various lengths and thickneses, more resembling the effects of art than nature. A flat thin stone from 8 to 10 inches thick, about 20 feet wide, forms the upper part of this amphitheatre,

tre, over which the stream precipitates. The whole front of this rock is made up from top to bottom, as well as from one extremity of the arch to the other, of a regular succession, principally, of limestone, strata over strata, and each stratum or row projecting in a horizontal direction, a little farther out than its base, until it terminates into one entire flat, thin, extensive piece, as already mentioned; and which jets out at right angles or in a parallel line with the bottom, over which it impends 15 or 20 feet, and that without columns, or even a single pillar for its support. This circumstance, together with the grand circular walk between the front of the rock, and the sheet of water falling from the summit, exhibits so noble and singular an appearance, that it cannot be beheld without admiration and delight.

THE
DISCOVERY, SETTLEMENT, and PRESENT STATE
OF
KENTUCKY.

By JOHN FILSON.

PUBLISHED IN THE YEAR 1784.

ADVERTISEMENT.

WE the subscribers, inhabitants of Kentucky, and well acquainted with the country from its first settlement; at the request of the author of this book, have carefully revised it, and recommend it to the public as an exceeding good performance, containing as accurate a description of our country as we think can possibly be given: much preferable to any in our knowledge extant; and think it will be of great utility to the public. Witness our hands this 12th day of May, Anno Domini 1784.

DANIEL BOON,
LEVI TODD,
JAMES HARROD.

PREFACE.

THE generality of those geographers, who have attempted a map or description of America, seem either to have no knowledge of Kentucky, or to have neglected it, although a place of infinite importance: and the rest have proceeded so erroneously, that they have left the world as much in darkness as before.

When I visited Kentucky, I found it so far to exceed my expectations, although great, that I concluded it was a pity that the world had not adequate information of it. I conceived that a proper description of it was an object highly interesting to the United States;

States; and therefore, incredible as it may appear to some, I must declare, that this performance is not published from lucrative motives, but solely to inform the world of the happy climate and plentiful soil of this favoured region. And I imagine the reader will believe me the more easily when I inform him, that I am not an inhabitant of Kentucky, but having been there some time, by my acquaintance in it, am sufficiently able to publish the truth, and, from principle, have cautiously endeavoured to avoid every species of falsehood. The consciousness of this encourages me to hope for the public candour, where errors may possibly be found. The three gentlemen honouring this work with their recommendation; colonel Boon, colonel Todd, and colonel Harrod, were among the first settlers, and perfectly well acquainted with the country. To them I acknowledge myself much indebted for their friendly assistance in this work, which they cheerfully contributed, with a disinterested view of being serviceable to the public. My thanks are more especially due to col. Boon, who was earlier acquainted with the subject of this performance than any other now living, as appears by the account of his adventures, which I esteemed curious and interesting, and therefore have published them from his own mouth. Much advantage may possibly arise to the possessor of this book, as those who wish to travel in Kentucky will undoubtedly find it a complete guide. To such I affirm, that there is nothing mentioned or described but what they will find true. Conscious that it would be of general utility, I have omitted nothing, and been exceeding particular in every part. That it may have the desired effect, is the sincere wish of

JOHN FILSON.

THE DISCOVERY, PURCHASE, AND SETTLEMENT OF KENTUCKY.

THE first white man we have certain accounts of, who discovered this province, was one James McBride, who, in company with some others, in the year 1754, passing down the Ohio in canoes, landed at the mouth of Kentucky river, and there marked a tree with the first letters of his name,

and the date, which remain to this day *. These men reconnoitred the country, and returned home with the pleasing news of their discovery of the best tract of land in North America, and probably in the world. From this period it remained concealed till about the year 1767, when one John Finley, and some others, trading with the Indians, fortunately travelled over the fertile region now called Kentucky, then but known to the Indians, by the name of the Dark and Bloody Ground, and sometimes the Middle Ground. This country greatly engaged Mr. Finley's attention. Some time after, disputes arising between the Indians and traders, he was obliged to decamp; and returned to his place of residence in North Carolina, where he communicated his discovery to col. Daniel Boon, and a few more, who conceiving it to be an interesting object, agreed in the year 1769 to undertake a journey in order to explore it. After a long fatiguing march, over a mountainous wilderness, in a westward direction, they at length arrived upon its borders; and from the top of an eminence, with joy and wonder, descried the beautiful landscape of Kentucky. Here they encamped, and some went to hunt provisions, which were readily procured, there being plenty of game, while col. Boon and John Finley made a tour through the country, which they found far exceeding their expectations, and returning to camp, informed their companions of their discoveries: but, in spite of this promising beginning, this company, meeting with nothing but hardships and adversity, grew exceedingly disheartened, and was plundered, dispersed, and killed by the Indians, except col. Boon, who continued an inhabitant of the wilderness until the year 1771, when he returned home.

3 About this time Kentucky had drawn the attention of several gentlemen. Doctor Walker, of Virginia, with a num-

* This was well known to the Virginian and Carolina men in 1750. Christopher Gist, Croghan, Barney Curran, Montour, and several others, explored it, and made a treaty in 1750 with the Piankashas Indians.

ber more, made a tour westward for discoveries, endeavouring to find the Ohio river; and afterwards he and general Lewis, at fort Stanwix, purchased from the Five Nations of Indians the lands lying on the north side of Kentucky. Col. Donaldson, of Virginia, being employed by the state to run a line from 6 miles above the Long island, on Holston, to the mouth of the Great Kanaway, and finding thereby that an extensive tract of excellent country would be cut off to the Indians, was solicited, by the inhabitants of Clinch and Holston, to purchase the lands lying on the north side of Kentucky river from the Five Nations. This purchase he completed for 500 pounds, specie. It was then agreed, to fix a boundary line, running from the Long island on Holston to the head of Kentucky river; thence down the same to the mouth, thence up the Ohio, to the mouth of Great Kanaway: but this valuable purchase the state refused to confirm.

Richard Henderson, of North Carolina, being informed of this country by col. Boon, he and some other gentlemen held a treaty with the Cherokee Indians at Wataga, in March 1775, and then purchased from them the lands lying on the south side of Kentucky river, for goods, at valuable rates, to the amount of 6000 pounds, specie.

Soon after this purchase, the state of Virginia took the alarm, agreed to pay the money col. Donaldson had contracted for, and then disputed Mr. Henderson's right of purchase, as a private gentleman of another state, in behalf of himself: however, for his eminent services to this country, and for having been instrumental in making so valuable an acquisition to Virginia, that state was pleased to reward him with a tract of land at the mouth of Green river, to the amount of 200,000 acres; and the state of North Carolina gave him the like quantity in Powell's valley. This region was formerly claimed by various tribes of Indians; whose title, if they had any, originated in such a manner, as to render it doubtful which ought to possess it: hence

this fertile spot became an object of contention, a theatre of war, from which it was properly denominated the Bloody Grounds. Their contentions not being likely to decide the right to any particular tribe, as soon as Mr. Henderson and his friends proposed to purchase, the Indians agreed to sell; and notwithstanding the valuable consideration they received, have continued ever since troublesome neighbours to the new settlers.

SITUATION AND BOUNDARIES.

KENTUCKY is situated, in its central part, near the latitude of 38° north, and 85° west longitude, and lying within the fifth climate, its longest day is 14 hours 40 minutes. It is bounded on the north by Great Sandy creek; by the Ohio on the N. W. by North Carolina on the south; and by the Cumberland mountain on the east; being upwards of 250 miles in length, and 200 in breadth; and is at present divided into 3 counties, Lincoln, Fayette, and Jefferson; of which Fayette and Jefferson are bounded by the Ohio, and the river Kentucky separates Fayette on its north side from the other two. There are at present 8 towns laid off, and building, and more are proposed.

Louisville, at the falls of Ohio, and Beards town, are in Jefferson county; Harrodsburg, Danville, and Boonsborough, in Lincoln county; Lexington, Lees town, and Greenville, in Fayette county; the two last being on Kentucky river. At these and many other places, on this and other rivers, inspecting-houses are established for tobacco, which may be cultivated to great advantage, although not altogether the staple commodity of the country.

RIVERS.

THE beautiful river Ohio bounds Kentucky in its whole length, being a mile and sometimes less in breadth, and is sufficient to carry boats of great burden. Its general course is south 60 degrees west; and in its course it receives numbers

bers of large and small rivers, which pay tribute to its glory. The only disadvantage this fine river has, is a rapid, one mile and an half long, and one mile and a quarter broad, called the falls of Ohio. In this place the river runs over a rocky bottom, and the descent is so gradual, that the fall does not probably in the whole exceed 20 feet. In some places we may observe it to fall a few feet. When the stream is low, empty boats only can pass and repass this rapid; their lading must be transported by land; but when high, boats of any burden may pass in safety. Excepting this place, there is not a finer river in the world for navigation by boats. Besides this, Kentucky is watered by 8 smaller rivers, and many large and small creeks.

Licking river heading in the mountains with Cumberland river, and the north branch of Kentucky, runs in a N. W. direction for upwards of 100 miles, collecting its silver streams from many branches, and is about 100 yards broad at its mouth.

Red river * heads and interlocks with the main branch of Licking, and flows in a S. W. course into Kentucky river, being about 60 miles long, and 60 yards wide at its mouth.

The Kentucky river rises, with 3 heads, from a mountainous part of the country. Its northern branch interlocks with Cumberland; runs half way in a western direction, and the other half north-westerly. It is amazingly crooked, upwards of 200 miles in length, and about 150 yards broad.

Elkhorn is a small river which empties itself into Kentucky in a N. W. by W. course; is about 50 miles long, and 50 yards broad at the mouth.

Dick's river joins the Kentucky in a north-west direction; is about 45 miles long, and 45 yards wide at its mouth. This river curiously heads and interlocks its branches with Salt river, Green river, and the waters of Rockcastle river. Salt river rises at four different places near each other.

* This river is a principal branch of the Kentucky.

The windings of this river are curious, rolling its streams round a spacious tract of fine land, and uniting almost 15 miles before they approach the Ohio, and 20 miles below the falls. It is amazingly crooked, and runs a western course near 90 miles.

Green river, interlocking with the heads of Dick's river, as mentioned above, is also amazingly crooked, keeps a western course for upwards of 150 miles, and is about 80 yards wide at its mouth, which is about 220 miles below the falls.

Cumberland river interlocks with the northern branch of Kentucky, as aforesaid; and rolling round the other arms of Kentucky among the mountains, in a southern course for 100 miles; then in a south-western course for above 100 miles; then in a southern and south-western course for about 250 more, finds the Ohio, 413 miles below the falls. At the settlements it is 200 yards broad; and at its mouth 300, having passed through North Carolina in about half its course.

The Great Kanhaway, or New river, rises in North Carolina; runs a northern and north-west course for upwards of 400 miles, and finds the Ohio 400 miles above the falls. It is about 500 yards wide at its mouth. These two rivers are just mentioned, being beyond our limits. They run contrary courses, are exceeding large; and it is worth notice, that Clinch, Holston, Nolachucky, and Frenchbroad rivers, take their rise between these two, or rather westward of New river, some of them rising and interlocking with it; and when they meet, form what is called the Tenasec river, which runs a western course, and finds the Ohio 12 miles below Cumberland river. It is very large, and has spacious tracts of fine land.

These rivers are navigable for boats almost to their sources, without rapids, for the greatest part of the year. This country is generally level, and abounding with limestone, which usually lies about 6 feet deep, except in hollows, where

where streams run, where we find the rock in the bottom of the channel.

The springs and streams lessen in June, and continue low, hindering navigation, until November, when the autumnal rains soon prepare the rivers for boats, and replenish the whole country with water; but although the streams decrease, yet there is always sufficient for domestic uses. There are many fine springs, that never fail; every farmer has a good one at least; and excellent wells may easily be dug.

NATURE OF THE SOIL.

THE country, in some parts, is nearly level; in others not so much so; in others again hilly, but moderately; and in such places there is most water. The levels are not like a carpet, but interspersed with small risings and declivities, which form a beautiful prospect. A great part of the soil is amazingly fertile; some not so good, and some poor. The inhabitants distinguish its quality by first, second, and third rate lands; and scarcely any such thing as a marsh or swamp is to be found. There is a ridge, where Kentucky rises, nearly of the size of a mountain.

All the land below the Great Kanaway, until we come near the waters of Licking river, is broken, hilly, and generally poor; except in some vallies, and on Little and Great Sandy creeks, where there is some first rate land, but mostly second and third rate. It is said, that near this water is found a pure salt rock. Upon the north branch of Licking we find a great body of first rate land. This stream runs nearly parallel to the Ohio for a considerable distance, and is about 7 miles from the mouth of Limestone creek, where is a fine harbour for boats coming down the Ohio, and now a common landing. It is 65 miles from Lexington, to which there is a large waggon road. The main branch of Licking is about 22 miles from Limestone. On this stream we find some first, but mostly second and third rate lands, and towards its head something hilly. There we find the Blue
licks.

licks, two fine salt springs, where great plenty of salt may be made. Round these licks the soil is poor for some distance, being much impregnated with salt.

The southern branch of Licking, and all its other arms, spread through a great body of first, and some second rate land, where there is abundance of cane, and some salt licks and springs. On these several branches of Licking are good mill seats, and navigation to the Ohio, from the fork down to its mouth. The land is hilly, and generally poor, yet along the streams and in vallies we find some excellent land.

The Elkhorn lands are much esteemed, being situated in a bend of Kentucky river of great extent, in which this little river, or rather large creek, rises. Here we find mostly first rate land, and near the Kentucky river second and third rate. This great tract is beautifully situated, covered with cane, wild rye, and clover; and many of the streams afford fine mill seats.

The lands below the mouth of Elkhorn, up Eagle creek, and towards the Ohio, are hilly and poor, except those contained in a great bend of the Ohio opposite Great Miami, cut off by the Bigbone and Banklick creeks interlocking, and running separate courses. Here we find a great deal of good land, but something hilly.

On Kentucky river we find many fertile vallies, or bottoms, along the river, especially towards its rise. There is good land also on Red river, but towards the heads of this, and Kentucky, the soil is broken; but even here, we find in vallies, and along streams, a great deal of fruitful land. Generally the soil, within a mile or two of Kentucky river, is of the third and fourth rates; from about that distance, as we leave it on either side, we approach good lands. The country through which it winds its course, for the most part, may be considered as level to its banks, or rather precipices; from the brow of which we behold the river, 3 and sometimes

times 400 feet deep, like a great canal. For a more particular account of this, we refer the reader to where we treat of the curiosities of Kentucky.

Dick's river runs through a great body of first rate land, abounding everywhere with cane, and affords many excellent mill seats. Many mills are already built on this stream, and will have a plentiful supply of water in the dryest seasons. The banks of this river, near its mouth, are similar to the banks of Kentucky. The several streams and branches of Salt river afford excellent mill seats. These roll themselves through a great tract of excellent land; but the country from the junction of these waters, and some miles above towards the Ohio, which may be about 25 miles, is level and poor, and has abundance of ponds. For a considerable distance from the head of this river, the land is of the first quality, well situated, and abounds with fine cane. Upon this and Dick's river, the inhabitants are chiefly settled, it being the safest part of the country from the incursions of the Indians.

Green river affords excellent mill seats, and a constant stream. This is allowed to be the best watered part of Kentucky. On its banks we find many fine bottoms, some first rate, but mostly second and third rate lands; and at some distance, many knobs, ridges, and broken poor land. Below a creek, called Sinking creek, on this river, within 50 miles of Ohio, towards Salt river, a great territory begins, called Green river barrons, extending to the Ohio. It has no timber, and little water, but affords excellent pasturage for cattle. On some parts of this river we find abundance of cane, some salt licks, and sulphureous and bituminous springs. South of Green river, in the lands reserved for the continental and state troops of Virginia, an exceeding valuable lead mine has lately been discovered. Iron ore is found on Rough creek, a stream running into this river. That part of Cumberland river which is in the Kentucky country, traverses

traverses a hilly poor land, though in some parts we find good soil along its sides. The other rivers I mentioned (viz. Great Kanhaway and Tenasee) are not in the Kentucky country, and therefore do not come properly within my plan.

The reader, by casting his eye upon the map, and viewing round the heads of Licking, from the Ohio, and round the heads of Kentucky, Dick's river, and down Green river to the Ohio, may view, in that great compass of above 100 miles square, the most extraordinary country upon which the sun ever shone.

The Ohio river, the great reservoir of all the numerous rivers that flow into it from both sides, has many fine vallies along its banks; and we observe that opposite to each of them there is a hill; these hills and bottoms changing sides alternately. It only remains under this head to inform the reader that there is a great body of first rate land near the falls, or rapids, called Bare-grass; and it will be sufficient just to mention that the country on the N. W. side of the Ohio is allowed by all travellers to be a most fertile, level country, and well watered.

AIR AND CLIMATE.

THIS country is more temperate and healthy than the other settled parts of America. In summer it has not the sandy heats which Virginia and Carolina experience, and receives a fine air from its rivers. In winter, which at most only lasts three months, commonly two, and is but seldom severe, the people are safe in bad houses; and the beasts have a good supply without fodder. The winter begins about christmas, and ends about the first of March, at farthest does not exceed the middle of that month. Snow seldom falls deep or lies long. The west winds often bring storms, and the east winds clear the sky; but there is no steady rule of weather in that respect, as in the northern states.

The

The west winds are sometimes cold and nitrous. The Ohio running in that direction, and there being mountains on that quarter, the westerly winds, by sweeping along their tops, in the cold regions of the air, and over a long tract of frozen water, collect cold in their course, and convey it over the Kentucky country; but the weather is not so intensely severe as these winds bring with them in Pennsylvania. The air and seasons depend very much on the winds, as to heat and cold, dryness and moisture.

SOIL. AND PRODUCE.

THE soil of Kentucky is of a loose, deep, black mould, without sand, in the first rate lands about 2 or 3 feet deep, and exceeding luxurious in all its productions. In some places the mould inclines to brown. In some the wood, as the natural consequence of too rich a soil, is of little value, appearing like dead timber and large stumps in a field lately cleared. These parts are not considerable. The country in general may be considered as well timbered, producing large trees of many kinds, and to be exceeded by no country in variety. Those which are peculiar to Kentucky are the sugar-tree, which grows in all parts in great abundance, and furnishes every family with plenty of excellent sugar. The honey-locust is curiously surrounded with large thorny spikes bearing broad and long pods in form of peas, has a sweet taste, and makes excellent beer.

The coffee-tree greatly resembles the black oak, grows large, and also bears a pod, in which is enclosed coffee. The papaw-tree does not grow to a great size, is a soft wood, bears a fine fruit, much like a cucumber in shape and size, and tastes sweet. The cucumber-tree is small and soft, with remarkable leaves, and bears a fruit much resembling that from which it is named. Black mulberry trees are in abundance. The wild cherry-tree is here frequent, of large size, and supplies the inhabitants with boards for all their buildings.

Here

Here also is the buck-eye, an exceeding soft wood, bearing a remarkable black fruit, and some other kinds of trees not common elsewhere. Here is a great plenty of fine cane, on which the cattle feed, and grow fat. This plant in general grows from 3 to 12 feet high, of a hard substance, with joints at 8 or 10 inches distance along the stalk, from which proceed leaves resembling those of the willow. There are many cane brakes so thick and tall, that it is difficult to pass through them. Where no cane grows there is abundance of wild rye, clover, and buffalo grass, covering vast tracts of country, and affording excellent food for cattle. The fields are covered with abundance of wild herbage not common to other countries—the shawanese fallad, wild lettuce, and pepper-grass, and many more, as yet unknown to the inhabitants, but which, no doubt, have excellent virtues. Here are seen the finest crown-imperials in the world, the cardinal flower, so much extolled for its scarlet colour; and all the year, excepting the winter months, the plains and valleys are adorned with variety of flowers of the most admirable beauty. Here is also found the tulip-bearing laurel-tree, or magnolia, which has an exquisite smell, and continues to blossom and feed for several months together.

This country is richest on the higher lands, exceeding the finest low grounds in the settled parts of the continent. When cultivated it produces in common 50 and 60 bushels per acre; and I have heard it affirmed by credible persons, that above 100 bushels of good corn were produced from an acre in one season. The first rate land is too rich for wheat till it have been reduced by 4 or 5 years cultivation.

Col. Harrod, a gentleman of veracity in Kentucky, has lately experienced the production of small grain, and affirms, that he had 35 bushels of wheat, and 50 bushels of rye per acre.

I think, in common, the land will produce about 30 bushels of wheat and rye, upon a moderate computation,
per

per acre; and this is the general opinion of the inhabitants. We may suppose that barley and oats will increase abundantly; as yet they have not been sufficiently tried. The soil is very favourable to flax and hemp, turnips, potatoes, and cotton, which grow in abundance; and the second, third, and fourth rate lands are as proper for small grain. These accounts of such amazing fertility may, to some, appear incredible, but are certainly true. Every husbandman may have a good garden or meadow, without water or manure, where he pleases. The soil, which is not of a thirsty nature, is commonly well supplied with plentiful showers.

Iron ore and lead are found in abundance, but we do not hear of any silver or gold mine as yet discovered.

The western waters produce plenty of fish and fowl. The fish, common to the waters of the Ohio, are the buffalo-fish, of a large size, and the cat-fish, sometimes exceeding 100 weight. Trout have been taken in Kentucky weighing 30 pounds. The mullet, rock, perch, gar-fish, and eel, are here in great plenty. Suckers, sun-fish, and other hook-fish, are abundant; but no shad or herrings. We may suppose with a degree of certainty, that there are large subterraneous aqueducts stored with fish, from whence fine springs arise in many parts, producing fine hook-fish in variety. On these waters, and especially on the Ohio, the geese and ducks are amazingly numerous.

The land fowls are turkies, which are very frequent, pheasants and partridges*. The paroquet, a bird every way resembling a parrot, but much smaller; the ivory-bill woodcock, of a whitish colour, with a white plume; flies screaming exceeding sharp. It is asserted that the bill of this bird is pure ivory, a circumstance very singular in the plummy tribe. The great owl resembles its species in other parts, but is remarkably different in its vociferation, some-

* What is called a partridge by most people in America is a quail, and what is called a pheasant is a species of grouse.

times making a strange surprising noise, like a man in the most extreme danger and difficulty.

Serpents are not numerous, and are such as are to be found in other parts of the continent, except the bull, the horned, and the mockason snakes. Swamps are rare, and consequently frogs and other reptiles common to such places. There are no swarms of bees, except such as have been introduced by the present inhabitants.

QUADRUPEDS.

AMONG the native animals are the urus, bison, or zorax, described by Cesar, which we call a buffalo, much resembling a large bull, of a great size, with a large head, thick, short, crooked horns, and broader in his forepart than behind. Upon his shoulder is a large lump of flesh, covered with a thick bos of long wool and curly hair, of a dark brown colour. They do not rise from the ground as our cattle, but spring up at once upon their feet; are of a broad make, and clumsy appearance, with short legs, but run fast, and turn not aside for any thing when chased, except a standing tree. They weigh from 500 to 1000 weight, are excellent meat, supplying the inhabitants in many parts with beef, and their hides make good leather. I have heard a hunter assert, he saw above 1000 buffaloes at the Blue licks at once; so numerous were they before the first settlers had wantonly sported away their lives. There still remains a great number in the exterior parts of the settlement. They feed upon cane and grass, as other cattle, and are innocent harmless creatures.

There are still to be found many deer, elks, and bears, within the settlement, and many more on the borders of it. There are also panthers, wild cats, and wolves.

The waters have plenty of beavers, otters, minks, and musk-rats: nor are the animals common to other parts wanting, such as foxes, rabbits, squirrels, racoons, ground-hogs, pole-cats, and opossums. Most of the species of the domestic

meftic quadrupeds have been introduced fince the fettlement, fuch as horfes, cows, fheep, and hogs, which are prodigioufly multiplied, fuffered to run in the woods without a keeper, and only brought home when wanted.

INHABITANTS.

AN accurate account is kept of all the male inhabitants above the age of 16, who are rated towards the expences of the government by the name of tithables; from which, by allowing that thofe fo enrolled amount to a fourth part of the whole inhabitants, we may conclude that Kentucky contains, at prefent, upwards of 30,000 fouls*: fo amazingly rapid has been the fettlement in a few years. Numbers are daily arriving, and multitudes expected this fall; which gives a well-grounded expectation that the country will be exceedingly populous in a fhort time. The inhabitants, at prefent, have not extraordinary good houfes, as is ufual in a newly fettled country.

They are, in general, polite, humane, hofpitable, and very complaifant. Being collected from different parts of the continent, they have a diverfity of manners, customs, and religions, which may, in time, perhaps, be modified to one uniform. As yet united to the ftate of Virginia, they are governed by her wholefome laws, which are virtuously executed, and with excellent decorum. Schools for education are formed, and a college is appointed by act of affembly of Virginia, to be founded under the conduct of trustees in Kentucky, and endowed with lands for its ufe. An excellent library is likewise beftowed upon this feminary by the rev. John Todd, of Virginia.

The anabaptifts were the firft that promoted public worfhip in Kentucky; and the prefbyterians have formed 3 large congregations near Harrod's ftation, and have engaged

* This eftimate, the reader will recollect, was made in 1784. It is afferted that 20,000 migrated hither in 1787.

the rev. David Rice, of Virginia, to be their pastor. At Lexington, 35 miles from these, they have formed another large congregation, and invited the rev. Mr. Rankin, of Virginia, to undertake that charge among them. At present there are no other religious societies formed, although several other sects have numerous adherents. But from these early movements it is hoped that Kentucky will eminently shine in learning and piety, which will fulfil the wish of every virtuous citizen.

CURIOSITIES.

AMONGST the natural curiosities of this country, the winding banks, or rather precipices of Kentucky and Dick's rivers, deserve the first place. The astonished eye there beholds almost every where 3 or 400 feet of a solid perpendicular limestone rock; in some parts a fine white marble, either curiously arched, pillared, or blocked up into fine building stones. These precipices, as was observed before, are like the sides of a deep trench, or canal; the land above being level, except where creeks set in, and crowned with fine groves of red cedar. It is only at particular places that this river can be crossed, one of which is worthy of admiration; a great road large enough for waggons made by the buffalo, sloping with an easy descent from the top to the bottom of a very large steep hill, at or near the river above Lees-town.

Caves are found in this country amazingly large; in some of which you may travel several miles under a fine limestone rock, supported by curious arches and pillars: in most of them runs a stream of water.

Near the head of Salt river a subterranean lake, or large pond, has lately been discovered. Col. Bowman says, that he and a companion travelled in one 4 hours till he luckily came to the mouth again. The same gentleman mentions another which operates like an air furnace, and contains
much

much sulphur. An adventurer in any of these will have a perfect idea of primæval darkness.

There appear to be great natural stores of sulphur and salt in this country. A spring at Boonsburrow constantly emits sulphureous particles, and near the same place is a salt spring. There is another sulphureous spring upon Four Mile creek, a third upon Green river, and many others in different places, abounding with that useful mineral.

There are 3 springs or ponds of bitumen near Green river, which do not form a stream, but disgorge themselves into a common reservoir, and when used in lamps answer all the purposes of the finest oil.

There are different places abounding with copperas, easily procured, and in its present impure state sufficient for the use of the inhabitants: and when refined, equal to any in the world.

There is an alum-bank on the south side of Cumberland river, situated at the bottom of a cliff of rocks projecting over it. In its present state it has the appearance, and possesses the virtues of that mineral, and when purified is a beautiful alum.

Many fine salt springs constantly emit water, which, being manufactured, affords great quantities of fine salt. At present there is but one, called Bullet's lick, improved, and this affords salt sufficient for all Kentucky, and exports some to the Illinois. Drinnon's lick, the Big-bone, and the Blue licks, send forth streams of salt water. The Nob lick, and many others, do not produce water, but consist of clay mixed with salt particles: to these the cattle repair, and reduce high hills rather to vallies than plains. The amazing herds of buffalo which resort thither, by their size and number, fill the traveller with amazement and terror, especially when he beholds the prodigious roads they have made from all quarters, as if leading to some populous city; the vast space of land around these springs desolated as if by a

ravaging enemy, and hills reduced to plains; for the land near those springs is chiefly hilly. These are truly curiosities, and the eye can scarcely be satisfied with admiring them.

A medicinal spring is found near the Great-bone lick, which has perfectly cured the itch by once bathing; and experience in time may discover in it other virtues. There is another of like nature near Drinnon's lick.

Near Lexington are to be seen curious sepulchres, full of human skeletons, which are thus fabricated. First on the ground are laid large broad stones; on these were placed the bodies, separated from each other by broad stones, covered with others, which serve as a basis for the next arrangement of bodies. In this order they are built, without mortar, growing still narrower to the height of a man. This method of burying appears to be totally different from that now practised by the Indians. At a salt spring near Ohio river, very large bones are found, far surpassing the size of any species of animals now in America. The head appears to have been about 3 feet long, the ribs 7, and the thigh bones about 4; one of which is repositied in the library in Philadelphia, and said to weigh 78 pounds. The tusks are above a foot in length, the grinders about 5 inches square, and 8 inches long. These bones have equally excited the amazement of the ignorant, and attracted the attention of the philosopher. Specimens of them have been sent both to France and England, where they have been examined with the greatest diligence, and found upon comparison to be remains of the same species of animals that produced those other fossil bones which have been discovered in Tartary, Chili, and several other places, both of the old and new continent. What animal this is, and by what means its ruins are found in regions so widely different, and where none such exists at present, is a question of more difficult decision. The ignorant and superstitious Tar-

tars attribute them to a creature, whom they call Maimon, who, they say, usually resides at the bottom of the rivers, and of whom they relate many marvellous stories; but as this is an assertion totally divested of proof, and even of probability, it has justly been rejected by the learned; and on the other hand it is certain, that no such amphibious quadruped exists in our american waters. The bones themselves bear a great resemblance to those of the elephant. There is no other terrestrial animal now known large enough to produce them*. The tusks with which they are equally furnished, equally produce true ivory. These external resemblances have generally made superficial observers conclude, that they could belong to no other than that prince of quadrupeds; and when they first drew the attention of the world, philosophers seem to have subscribed to the same opinion.—But if so, whence is it that the whole species has disappeared from America? An animal so laborious and so docile, that the industry of the Peruvians, which reduced to servitude and subjected to education species so vastly inferior in those qualities, as the llama and the paca, could never have overlooked the elephant, if he had been to be found in their country. Whence is it that these bones are found in climates where the elephant, a native of the torrid zone, cannot even subsist in his wild state, and in a state of servitude will not propagate? These are difficulties sufficient to stagger credulity itself; and at length produced the inquiries of Dr. Hunter. That celebrated anatomist, having procured specimens from the Ohio, examined them with that accuracy for which he is so much

* Those found in Siberia, in the regions of the Lena and other places, are called in Russia *mamotovokosti*, or mammoth's bones. Numbers of them are to be seen in the museum of the imperial academy of sciences at St. Petersburg, and are of a wonderful magnitude. One half of a jaw, with the teeth, is as much as a strong man can lift from the ground, and a single joint of the vertebra of the back bones weighs 40 or 50 pounds.—EDIT.

distinguished. He discovered a considerable difference between the shape and structure of the bones, and those of the elephant. He observed, from the form of the teeth, that they must have belonged to a carnivorous animal; whereas the habits of the elephant are foreign to such sustenance, and his jaws totally unprovided with the teeth necessary for its use: and from the whole he concluded, to the satisfaction of naturalists, that these bones belonged to a quadruped now unknown, and whose race is probably extinct, unless it may be found in the extensive continent of New Holland, whose recesses have not yet been pervaded by the curiosity or avidity of civilized man. Can then so great a link have perished from the chain of nature? Happy we that it has. How formidable an enemy to the human species, an animal as large as the elephant, the tyrant of the forests, perhaps the devourer of man! Nations, such as the Indians, must have been in perpetual alarm. The animosities among the various tribes must have been suspended till the common enemy, who threatened the very existence of all, should be extirpated. To this circumstance we are probably indebted for a fact, which is perhaps singular in its kind, the extinction of a whole race of animals from the system of nature.

RIGHTS OF LAND.

THE proprietors of the Kentucky lands obtain their patents from Virginia, and their rights are of three kinds, viz. Those which arise from military service, from settlement and pre-emption, or from warrants from the treasury. The military rights are held by officers, or their representatives, as a reward for services done in one of the two last wars. The settlement and pre-emption rights arise from occupation. Every man who, before March 1780, had remained in the country one year, or raised a crop of corn, was allowed to
have

have a settlement of 400 acres, and a pre-emption adjoining it of 1000 acres. Every man who had only built a cabin, or made any improvement by himself or others, was entitled to a pre-emption of 1000 acres where such improvement was made.

In March 1780, the settlement and pre-emption rights ceased, and treasury warrants were afterwards issued, authorizing their possessor to locate the quantity of land mentioned in them, wherever it could be found vacant in Virginia.

The mode of procedure in these affairs may be instructive to the reader. After the entry is made in the land-office, there being one in each county, the person making the entry takes out a copy of the location, and proceeds to survey when he pleases. The plot and certificate of such survey must be returned to the office within 3 months after the survey is made, there to be recorded; and a copy of the record must be taken out in 12 months after the return of the survey, and produced to the assistant register of the land-office in Kentucky, where it must lie 6 months, that prior locators may have time and opportunity to enter a caveat, and prove their better right. If no caveat is entered in that time, the plot and certificate are sent to the land-office at Richmond in Virginia, and 3 months more are allowed to have the patent returned to the owner.

The validity of the right of Virginia to this extensive western territory has been disputed by some, but without reason. The western boundary of that state, by charter, restricted by the treaty of Paris, in 1763, is fixed upon the Ohio river. She has purchased the soil from the Indians, has first settled it, and established wholesome laws for the regulation and government of the inhabitants; and therefore we conclude, that the right of Virginia to Kentucky is as permanent as the independence of America.

TRADE OF KENTUCKY.

A CONVENIENT situation for commerce is the grand hinge upon which the population, riches, and happiness of every country greatly depend. I believe many conceive the situation of Kentucky to be unfavourable in this respect. I confess, when I first visited this country, I was of the opinion of other misinformed men, that the best channel was from Philadelphia or Baltimore, by the way of Pittsburg, and from thence down the Ohio; and upon account of the difficulties and expences attending this route, for which there is no remedy, that goods would ever be dear. This opinion I have since reprobated, as the effect of ignorance of the trade up the Mississippi from New Orleans, or Mantchac, at the river or gut Iberville.

Those who are acquainted with America know the Mississippi and Ohio rivers to be the key to the northern parts of the southern continent. These are the principal channels through which that extensive region, bathed by their waters, and enriched by the many streams they receive, communicate with the sea, and may truly be considered as the great passage made by the hand of nature for a variety of valuable purposes, and principally to promote the happiness and benefit of mankind; amongst which, the conveyance of the produce of that immense and fertile country lying westward of the United States is not the least. A short description of these rivers, and some others flowing into them, are objects submitted to the reader's attention, in order to form a just idea of the favourable commercial circumstances of that important country.

The Ohio river begins at Pittsburg, 320 miles west of Philadelphia, being there formed by the junction of the Allegany and Monongahela rivers, and, running a winding course of S. 60° west, falls into the Mississippi 1074 miles,
by

by the meanders of the river, below Pittsburg *. The only obstruction to navigation on this river are the rapids, as described before under the description of the Kentucky rivers; but they are passed in safety when the stream is high.

The

* The navigation of the Ohio, in a dry season, is rather troublesome from fort Pitt to the Mingo town (about 75 miles), but from thence to the Mississippi, there is always a sufficient depth of water for barges, carrying from 100 to 200 tons burden, built in the manner of those which are used on the river Thames between London and Oxford; to wit, from 100 to 120 feet in the keel, 16 to 18 feet in breadth, and 4 feet in depth, and when loaded, drawing about 3 feet water.

The rapids, in a dry season, are difficult to descend with loaded boats or barges, without a good pilot; it would be advisable, therefore, for the bargemen, in such season, rather than run any risk in passing them, to unload part of their cargoes, and re-ship it when the barges have got through the rapids. It may, however, be proper to observe, that loaded boats in freshes have been easily rowed against the stream (up the rapids), and that others, by means only of a large sail, have ascended them.

In a dry season, the descent of the rapids, in the distance of a mile, is about 12 or 15 feet, and the passage down would not be difficult, except perhaps for the following reasons: Two miles above them the river is deep, and three quarters of a mile broad (near three fourths of the bed of the river, on the south-eastern side of it, being filled with a flat limestone rock, so that, in a dry season, there is seldom more than 6 or 8 inches water); it is upon the northern side of the river; and being confined, above mentioned, the descending waters tumble over the rapids with a considerable degree of celerity and force. The channel is of different depths, but no where, I think, less than 5 feet; it is clear, and upon each side of it are large broken rocks, a few inches under water. Col. Gordon, in his journal down the Ohio, mentions, "that these falls do not deserve that name, as the stream on the north side has no sudden pitch, but only runs rapid over the ledge of a flat rock; several boats," he says, "passed it *in the dryest season of the year*; unloading one third of their freight. They passed on the north side, where the carrying-place is three quarters of a mile long. On the south-east side it is about half that distance; and is reckoned the safest passage for those who are unacquainted with it; but it is the most tedious, as during part of the summer and fall, the batteaux-men drag their boats over the flat rock. The fall is about half a mile rapid water, which, however, is passable, by wading and dragging the boat against the stream, when lowest; and

The most remarkable branches composing the head waters of Ohio are Red-stone creek, Cheat river, and Yohogania. These waters are navigable to a considerable distance above Pittsburg, from November until June, and the Ohio a month longer; but from Great Kanaway, which is $196\frac{1}{2}$ miles below Pittsburg, the stream is navigable most of the year. Down this river great quantities of goods are brought, and some are conveyed up the Kentucky rivers, others on horseback, or in waggons, to the settled part, and sold on an average at 100 pounds per cent. advance.

The current of the Ohio descends about 2 miles an hour in autumn, and when the waters are high about 4 miles. Those of the Kentucky rivers are much the same, and without rapids, and are of immense value to the country, affording fish and fowl, and transportation of the produce of the country to the best market. These rivers increase the Ohio more in depth than breadth. At its mouth it is not more than $1\frac{1}{2}$ mile in width, and enters the Mississippi in a south-west direction with a slow current, and a fine channel. This great river, at the junction with the Ohio, runs in a S. E. direction, and afterwards in a S. W. having been a little before joined by a greater river called Missouri, which runs in an eastward direction through Louisiana, and afterwards communicates to the Mississippi its own muddy and majestic appearance. The depth is, in common, 8 or 10 fathoms, until you approach its mouth, which empties itself by several channels into the gulf of Mexico. Here the navigation is dangerous, on account of the many islands, sand-bars, and logs, interspersed in its mouth, which is about 20 miles wide. This disadvantage may be remedied

and with still greater ease, when the water is raised a little."—See the annexed plan, which is a correct description of these rapids.—The rapids are nearly in latitude $38^{\circ} 8'$; and the only indian village, in 1766, on the banks of the Ohio, between them and fort Pitt, was on the north-west side, 75 miles below Pittsburg, called the Mingo town; it contained 60 families.—EDIT.

almost

almost in the same manner that the stream was disconcerted. The conflict between the sea and this mighty river, which brings down with its stream great numbers of trees, mud, leaves, &c. causes them to subside, and form shoals. One of these trees, stopped by its roots or branches, will soon be joined by thousands more, and so fixed, that no human force is able to remove them. In time they are consolidated, every flood adds another layer to their height, forming islands, which at length are covered with shrubs, grass, and cane, and forcibly shift the bed of the river. In this manner we suppose most of the country on each side of the Mississippi, below the Iberville, to have been formed, by islands uniting to islands, which, in a succession of time, have greatly encroached on the sea, and produced an extensive tract of country. If some of the floating timber at the mouths of this river were moved into some of the channels, numbers more would incorporate with them; and the current being impeded in these, the whole force of the river uniting, one important channel would forcibly be opened, and sufficiently cleared to admit of the most excellent navigation.

About 99 miles above Orleans is a fort, now called Mantchac by the Spaniards; formerly Fort Bute by the English, who built it. Near this is a large gut, formed by the Mississippi, on the east side, called Iberville; some have dignified it with the name of river, when the Mississippi, its source, is high. This is navigable, at most, not above 4 months in the year for the first 10 miles; for 3 miles further it is from 2 to 6 feet in autumn, and from 2 to 4 fathoms the remaining part of the way to lake Maurepas, receiving in its course the river Amit, which is navigable for batteaux to a considerable distance.

Lake Maurepas is about 10 miles in length, and 7 in breadth; and there is a passage of 7 miles between this and lake Pontchartrain,

Lake Pontchartrain is about 40 miles long, 24 broad, and 18 feet deep. From this lake to the sea the channel is 10 miles long, and 300 yards wide; and the water deep enough to admit large vessels through these lakes, and their communications. This place, if attended to, might be of consequence to all the western country, and to the commerce of West Florida: for it may reasonably be supposed, that the inhabitants and traders of the western country would rather trade at this place than at New Orleans, if they could have as good returns for their peltry, and the produce of their soil, as it makes a considerable difference in their voyage, and saves labour, money, and time. Experience will doubtless produce considerable improvements, and render the navigation of the Mississippi, either by these lakes, or New Orleans, nearly as cheap as any other. That the Mississippi can answer every valuable purpose of trade and commerce is proved already to a demonstration by experience.

I have reason to believe that the time is not far distant when New Orleans will be a great trading city, and perhaps another will be built near Mantchac, at Iberville, that may in time rival its glory.

A prodigious number of islands, some of which are of great extent, are interspersed in that mighty river; and the difficulty in ascending it in the spring, when the floods are high, is compensated by eddies or counter currents, which mostly run in the bends near the banks of the river with nearly equal velocity against the stream, and assist the ascending boats. This river is rapid in those parts which have clusters of islands, shoals, and sand-banks; but the rapidity of these places will be no inconvenience to the newly invented mechanical boats *, it being their peculiar property to sail best in smart currents.

From

* This plan is now in agitation in Virginia, and recommended to government by two gentlemen of the first rate abilities, Mr. Charles

From New Orleans to the falls of Ohio, batteaux, carrying about 40 tons, have been rowed by 18 or 20 men in 8 or 10 weeks, which, at the extent, will not amount to more than 500 pounds expence, which experience has proved to be about one-third of that from Philadelphia. It is highly probable that in time the distance will be exceedingly shortened by cutting across bends of the river.

Charlevoix relates, that at Coupés or Cut-point, the river formerly made a great turn, and some Canadians, by deepening the channel of a small brook, diverted the waters of the river into it. The impetuosity of the stream was so violent, and the soil of so rich and loose a quality, that in a short time the point was entirely cut through, and the old channel left dry, except in inundations, by which travellers save 14 leagues of their voyage. The new channel has been sounded with a line of 30 fathoms without finding bottom. When the distance is shortened, which I believe may readily be done, and the mechanical boats brought to their highest improvement, the expences of a voyage from New Orleans to the falls of Ohio will be attended with inconsiderable expence. Now we know by experience that 40 tons of goods cannot be taken to the falls of Ohio from Philadelphia under 1600 pounds expence; but by improvements on the Mississippi, with the conveniences of these boats, goods can be brought from New Orleans to the falls for the tenth part of that expence; and if they are sold at 100 pounds per cent. now, when brought from Philadelphia at expences so great, what may the merchant afford to sell his goods at, who brings them so much cheaper? besides the great advantages arising from the exporting of peltry, and country

Charles Rumsey and Dr. James M'Macken. Their proposals are; "to construct a species of boat, of the burden of 10 tons, that shall sail, or be propelled by the force of mechanical powers thereto applied, up the stream of a fresh water river the distance of between 25 and 40 miles a day, notwithstanding the velocity of the water should move at the rate of 10 miles an hour, to be wrought at no greater expence than that of 3 hands."

produce,

produce, which never can be conveyed to any of the eastern ports to any advantage. It is evident also that the market from which they receive imports, must consequently receive their exports, which is the only return they can possibly make.

By stating the commerce of Kentucky in its proper terms, we find the expences such, that we conclude with propriety, that that country will be supplied with goods as cheap as if situated but 40 miles from Philadelphia.

But perhaps it will be replied, New Orleans is in the possession of the Spaniards, who, whenever they please, may make use of that fort, and some others they have on the Mississippi, to prevent the navigation, and ruin the trade. The passage through Iberville is also subject to the Spaniards, and, besides, inconvenient; that stream continuing so short a time, and in the most disadvantageous season.

I grant it will be absurd to expect a free navigation of the Mississippi whilst the Spaniards are in possession of New Orleans. To suppose it, is an idea calculated to impose only upon the weak. They may perhaps trade with us upon their own terms, while they think it consistent with their interest *, but no friendship in trade exists when interest expires; therefore, when the western country becomes populous and ripe for trade, sound policy tells us the Floridas must be ours too. According to the articles of the definitive treaty, we are to have a free and unmolested navigation of the Mississippi; but experience teaches mankind that treaties are not always to be depended upon, the most solemn being broken. Hence we learn that no one should put much faith in any state; and the trade and commerce of the Mississippi river cannot be so well secured in any other possession as our own.

* Article 8th of the late definitive treaty, says, The navigation of the Mississippi river, from its source to the ocean, shall for ever remain free and open to the subjects of Great Britain and the citizens of the United States.

Although

Although the Iberville only admits of a short and inconvenient navigation, yet if a commercial town were built there, it would be the centre of the western trade; and a land carriage of 10 or 12 miles would be counted no disadvantage to the merchant. Nay, I doubt not, that in time a canal will be broke through the gut of Iberville, which may divert the water of Mississippi that way, and render it a place of the greatest consequence in America; but this important period is reserved for futurity.

GOVERNMENT *.

THE constitution of this state was formed and adopted in 1792. By it the powers of government are divided into 3 distinct departments: legislative, executive, and judiciary. The legislative power is vested in a general assembly, consisting of a senate and house of representatives; the supreme executive in a governor; the judiciary in the supreme court of appeals, and such inferior courts as the legislature may establish. The representatives are chosen annually, by the people; the senators and governor are chosen for 4 years, by electors appointed for that purpose; the judges are appointed, during good behaviour, by the governor, with advice of the senate. An enumeration of the free male inhabitants, above 21 years old, is to be made once in 4 years. After each enumeration, the number of senators and representatives is to be fixed by the legislature, and apportioned among the several counties, according to the number of inhabitants. There can never be fewer than 40, nor more than 100 representatives. The senate at first consisted of 11 members; and for the addition of every 4 representatives, one senator is to be added. The representatives must be 24 years of age, the senators 27; the governor 30, and all of them must have been inhabitants of the state 2 years. The go-

* This section on the government is added by the present editor.

governor can hold no other office : the members of the general assembly none, but those of attorney at law, justice of the peace, coroner, and in the militia. The judges, and all other officers, must be inhabitants of the counties for which they are appointed. The governor, members of the general assembly, and judges, receive stated salaries out of the public treasury, from which no money can be drawn but in consequence of appropriation by law. All officers take an oath of fidelity to discharge the duties of their offices, and are liable to impeachment for misconduct. Elective officers must swear that they have not used bribery in obtaining their elections. All free male citizens, 21 years old, having resided in the state 2 years, or in the county where they offer to vote, 1 year, have a right to vote for representatives, and for electors of senators and governor, and are privileged from arrest, in civil actions, while attending that business. The general assembly meets on the first Monday in November, in each year, unless sooner convened by the governor. Each house chooses its speaker and other officers, judges of the qualifications of its members, and determines the rules of its proceedings, of which a journal is kept and published weekly, unless secrecy be requisite. The doors of both houses are kept open. The members of the legislature, while attending the public business, are privileged from arrests in civil actions, and may not be questioned elsewhere for any thing said in public debate. Impeachments are made by the lower house, and tried by the upper. All revenue bills originate in the house of representatives, and are amendable by the senate, like other bills. Every bill, passed by both houses, is presented to the governor, who must sign it if he approve it ; if not, he must return it within 10 days to the house in which it originated ; if it be not returned, or if, when returned, it be re-passed by two-thirds of both houses, it is a law, without his signature. The governor has power to appoint most of the executive officers of the state ; to remit

fines

finer and forfeitures, and grant reprieves and pardons, except in cases of impeachment; to require information from executive officers; to convene the general assembly on extraordinary occasions, and adjourn them in case they cannot agree on the time themselves. He must inform the legislature of the state of the commonwealth; recommend to them such measures as he shall judge expedient, and see that the laws are faithfully executed. The speaker of the senate exercises the office of governor in case of vacancy. The legislature has power to forbid the farther importation of slaves, but not to emancipate those already in the state, without the consent of the owner, or paying an equivalent. Treason against the commonwealth consists only in levying war against it, or in adhering to its enemies, giving them aid and comfort.

The declaration of rights asserts the civil equality of all; their right to alter the government at any time; liberty of conscience; freedom of elections and of the press; trial by jury; the subordination of the military to the civil power; the rights of criminals to be heard in their own defence; the rights of the people to petition for the redress of grievances, to bear arms, and to emigrate from the state. It prohibits unreasonable searches and seizures; excessive bail; confinement of debtors, unless there be presumption of fraud; suspension of habeas corpus writ, unless in rebellion or invasion; ex post facto laws; attainder by the legislature; standing armies; titles of nobility and hereditary distinction.

THE ADVENTURES
OF
COLONEL DANIEL BOON,
FORMERLY A HUNTER:

Containing a NARRATIVE of the WARS of KENTUCKY.

CURIOSITY is natural to the soul of man, and interesting objects have a powerful influence on our affections. Let these influencing powers actuate, by the permission or disposal of providence, from selfish or social views, yet in time the mysterious will of heaven is unfolded, and we behold our conduct, from whatsoever motives excited, operating to answer the important designs of heaven. Thus we behold Kentucky, lately an howling wilderness, the habitation of savages and wild beasts, become a fruitful field; this region, so favourably distinguished by nature, now become the habitation of civilization, at a period unparalleled in history, in the midst of a raging war, and under all the disadvantages of emigration to a country so remote from the inhabited parts of the continent. Here, where the hand of violence shed the blood of the innocent; where the horrid yells of savages, and the groans of the distressed, sounded in our ears, we now hear the praises and adorations of our Creator; where wretched wigwams stood, the miserable abodes of savages, we behold the foundations of cities laid, that, in all probability, will equal the glory of the greatest upon earth. And we view Kentucky situated on the fertile banks of the great Ohio, rising from obscurity to shine with splendour, equal to any other of the stars of the american hemisphere.

The settling of this region well deserves a place in history. Most of the memorable events I have myself been exercised in; and, for the satisfaction of the public, will briefly relate

late the circumstances of my adventures, and scenes of life, from my first movement to this country, until this day.

It was on the 1st of May, in the year 1769, that I resigned my domestic happiness for a time, and left my family and peaceable habitation on the Yadkin river, in North-Carolina, to wander through the wilderness of America, in quest of the country of Kentucky, in company with John Finley, John Stewart, Joseph Holden, James Monay, and William Cool. We proceeded successfully; and after a long and fatiguing journey, through a mountainous wilderness, in a westward direction, on the seventh day of June following we found ourselves on Red river, where John Finley had formerly been trading with the Indians, and, from the top of an eminence, saw with pleasure the beautiful level of Kentucky. Here let me observe, that for some time we had experienced the most uncomfortable weather as a prelibation of our future sufferings. At this place we encamped, and made a shelter to defend us from the inclement season, and began to hunt and reconnoitre the country. We found everywhere abundance of wild beasts of all sorts, through this vast forest. The buffalo were more frequent than I have seen cattle in the settlements, browsing on the leaves of the cane, or cropping the herbage on those extensive plains, fearless, because ignorant, of the violence of man. Sometimes we saw hundreds in a drove, and the numbers about the salt springs were amazing. In this forest, the habitation of beasts of every kind natural to America, we practised hunting with great success, until the 22d day of December following.

This day John Stewart and I had a pleasing ramble, but fortune changed the scene in the close of it. We had passed through a great forest, on which stood myriads of trees, some gay with blossoms, others rich with fruits. Nature was here a series of wonders, and a fund of delight. Here

she displayed her ingenuity and industry in a variety of flowers and fruits, beautifully coloured, elegantly shaped, and charmingly flavoured; and we were diverted with innumerable animals presenting themselves perpetually to our view.—In the decline of the day, near Kentucky river, as we ascended the brow of a small hill, a number of Indians rushed out of a thick cane-brake upon us, and made us prisoners. The time of our sorrow was now arrived, and the scene fully opened. The Indians plundered us of what we had, and kept us in confinement 7 days, treating us with common savage usage. During this time we discovered no uneasiness or desire to escape, which made them less suspicious of us; but in the dead of the night, as we lay in a thick cane-brake by a large fire, when sleep had locked up their senses, my situation not disposing me for rest, I touched my companion, and gently awoke him. We improved this favourable opportunity, and departed, leaving them to take their rest, and speedily directed our course towards our old camp, but found it plundered, and the company dispersed and gone home. About this time, my brother, Squire Boon, with another adventurer, who came to explore the country shortly after us, was wandering through the forest, determined to find me if possible, and accidentally found our camp. Notwithstanding the unfortunate circumstances of our company, and our dangerous situation, as surrounded with hostile savages, our meeting so fortunately in the wilderness, made us reciprocally sensible of the utmost satisfaction. So much does friendship triumph over misfortune, that sorrows and sufferings vanish at the meeting not only of real friends, but of the most distant acquaintances, and substitute happiness in their room.

Soon after this, my companion in captivity, John Stewart, was killed by the savages, and the man that came with my brother returned home by himself. We were then in a dan-

dangerous, helpless situation, exposed daily to perils and death, amongst savages and wild beasts, not a white man in the country but ourselves.

Thus situated, many hundred miles from our families, in the howling wilderness, I believe few would have equally enjoyed the happiness we experienced. I often observed to my brother, You see now how little nature requires to be satisfied. Felicity, the companion of content, is rather found in our own breasts than in the enjoyment of external things : and I firmly believe it requires but a little philosophy to make a man happy in whatsoever state he is. This consists in a full resignation to the will of providence ; and a resigned soul finds pleasure in a path strewn with briars and thorns.

We continued not in a state of indolence, but hunted every day, and prepared a little cottage to defend us from the winter storms. We remained there undisturbed during the winter ; and on the first day of May 1770, my brother returned home to the settlement by himself, for a new recruit of horses and ammunition, leaving me by myself, without bread, salt, or sugar, without company of my fellow-creatures, or even a horse or dog. I confess I never before was under greater necessity of exercising philosophy and fortitude. A few days I passed uncomfortably. The idea of a beloved wife and family, and their anxiety upon the account of my absence and exposed situation, made sensible impressions on my heart. A thousand dreadful apprehensions presented themselves to my view, and had undoubtedly disposed me to melancholy, if further indulged.

One day I undertook a tour through the country, and the diversity and beauties of nature I met with in this charming season, expelled every gloomy and vexatious thought. Just at the close of day the gentle gales retired, and left the place to the disposal of a profound calm. Not a breeze shook the most tremulous leaf. I had gained the summit of

a commanding ridge, and, looking round with astonishing delight, beheld the ample plains, the beauteous tracts below. On the other hand, I surveyed the famous river Ohio, that rolled in silent dignity, marking the western boundary of Kentucky with inconceivable grandeur. At a vast distance I beheld the mountains lift their venerable brows, and penetrate the clouds. All things were still. I kindled a fire near a fountain of sweet water, and feasted on the loin of a buck, which a few hours before I had killed. The fullen shades of night soon overspread the whole hemisphere, and the earth seemed to gasp after the hovering moisture. My roving excursion this day had fatigued my body, and diverted my imagination. I laid me down to sleep, and I awoke not until the sun had chased away the night. I continued this tour, and in a few days explored a considerable part of the country, each day equally pleased as the first. I returned again to my old camp, which was not disturbed in my absence. I did not confine my lodging to it, but often reposed in thick cane-brakes, to avoid the savages, who, I believe, often visited my camp, but fortunately for me, in my absence. In this situation I was constantly exposed to danger and death. How unhappy such a situation for a man tormented with fear, which is vain if no danger comes, and if it does, only augments the pain ! It was my happiness to be destitute of this afflicting passion, with which I had the greatest reason to be affected. The prowling wolves diverted my nocturnal hours with perpetual howlings ; and the various species of animals in this vast forest, in the day-time, were continually in my view.

Thus I was surrounded with plenty in the midst of want. I was happy in the midst of dangers and inconveniences. In such a diversity it was impossible I should be disposed to melancholy. No populous city, with all the varieties of commerce and stately structures, could afford so much pleasure

pleasure to my mind, as the beauties of nature I found here.

Thus, through an uninterrupted scene of sylvan pleasures, I spent the time until the 27th day of July following, when my brother, to my great felicity, met me, according to appointment, at our old camp. Shortly after, we left this place, not thinking it safe to stay there longer, and proceeded to Cumberland river, reconnoitring that part of the country until March 1771, and giving names to the different waters.

Soon after, I returned home to my family, with a determination to bring them as soon as possible to live in Kentucky, which I esteemed a second paradise, at the risk of my life and fortune.

I returned safe to my old habitation, and found my family in happy circumstances. I sold my farm on the Yadkin, and what goods we could not carry with us; and on the 25th day of September 1773, bade a farewell to our friends, and proceeded on our journey to Kentucky, in company with 5 families more, and 40 men, that joined us in Powell's valley, which is 150 miles from the now settled parts, or Kentucky. This promising beginning was soon overcast with a cloud of adversity; for, upon the 10th day of October, the rear of our company was attacked by a number of Indians, who killed 6, and wounded 1 man. Of these my eldest son was one that fell in the action. Though we defended ourselves, and repulsed the enemy, yet this unhappy affair scattered our cattle, brought us into extreme difficulty, and so discouraged the whole company, that we retreated 40 miles, to the settlement on Clinch river. We had passed over two mountains, viz. Powell's and Walden's, and were approaching Cumberland mountain, when this adverse fortune overtook us. These mountains are in the wilderness, as we pass from the old settlements in Virginia to Kentucky, are ranged in a S. W. and N. E. direction, are of a great length

and breadth, and not far distant from each other*. Over these nature has formed passes, that are less difficult than might be expected from a view of such huge piles. The aspect of these cliffs is so wild and horrid, that it is impossible to behold them without terror. The spectator is apt to imagine that nature had formerly suffered some violent convulsion; and that these are the dismembered remains of the dreadful shock; the ruins, not of Persepolis or Palmyra, but of the world!

I remained with my family on Clinch until the 6th of June 1774, when I and one Michael Stoner were solicited by governor Dunmore, of Virginia, to go to the falls of the Ohio, to conduct into the settlement a number of surveyors that had been sent thither by him some months before; this country having about this time drawn the attention of many adventurers. We immediately complied with the governor's request, and conducted in the surveyors, completing a tour of 800 miles, through many difficulties, in 62 days.

Soon after I returned home, I was ordered to take the command of three garrisons during the campaign, which governor Dunmore carried on against the shawanese Indians: after the conclusion of which, the militia was discharged from each garrison, and I being relieved from my post, was solicited by a number of North-Carolina gentlemen, that were about purchasing the lands lying on the south side of Kentucky river, from the Cherokee Indians, to attend their treaty at Wataga, in March 1775, to negotiate with them, and mention the boundaries of the purchase. This I accepted; and, at the request of the same gentlemen, undertook to mark out a road in the best passage from the settle-

* From the nature of the surface and interior texture of this american part of our earth, the mountains, as we in our relative language call them, all run in ridges, with almost even tops in parallel lines; those to the west of Hudson's river north-east and south-west; those to the eastward of it nearly north and south; between which, in like parallel lines, run the great rivers.—EDIT.

ment through the wilderness to Kentucky, with such assistance as I thought necessary to employ for such an important undertaking.

I soon began this work, having collected a number of enterprising men, well armed. We proceeded with all possible expedition until we came within 15 miles of where Boonsborough now stands, and where we were fired upon by a party of Indians that killed 2, and wounded 2 of our number; yet, although surprised and taken at a disadvantage, we stood our ground: this was on the 20th of March 1775. Three days after we were fired upon again, and had 2 men killed, and 3 wounded. Afterwards we proceeded on to Kentucky river without opposition; and on the first day of April began to erect the fort of Boonsborough at a salt lick, about 60 yards from the river, on the south side.

On the fourth day the Indians killed one of our men.— We were busily employed in building this fort, until the 14th day of June following, without any farther opposition from the Indians; and having finished the works, I returned to my family on Clinch.

In a short time I proceeded to remove my family from Clinch to this garrison, where we arrived safe without any other difficulties than such as are common to this passage; my wife and daughter being the first white women that ever stood on the banks of Kentucky river.

On the 24th day of December following, we had one man killed, and one wounded, by the Indians, who seemed determined to persecute us for erecting this fortification.

On the 14th day of July 1776, two of colonel Calaway's daughters, and one of mine, were taken prisoners near the fort. I immediately pursued the Indians with only 8 men, and on the 16th overtook them, killed 2 of the party, and recovered the girls. The same day on which this attempt was made, the Indians divided themselves into different parties, and attacked several forts, which were shortly before
this

this time erected, doing a great deal of mischief. This was extremely distressing to the new settlers. The innocent husbandman was shot down, while busy in cultivating the soil for his family's supply. Most of the cattle around the stations were destroyed. They continued their hostilities in this manner until the 15th of April 1777, when they attacked Boonsborough with a party of above 100 in number, killed 1 man, and wounded 4.—Their loss in this attack was not certainly known to us.

On the 4th day of July following, a party of about 200 Indians attacked Boonsborough, killed 1 man, and wounded 2. They besieged us 48 hours; during which time 7 of them were killed, and, at last, finding themselves not likely to prevail, they raised the siege, and departed.

The Indians had disposed their warriors in different parties at this time, and attacked the different garrisons, to prevent their assisting each other, and did much injury to the distressed inhabitants.

On the 19th day of this month, colonel Logan's fort was besieged by a party of about 200 Indians. During this dreadful siege they did a great deal of mischief, distressed the garrison, in which were only 15 men, killed 2, and wounded 1. The enemy's loss was uncertain, from the common practice which the Indians have of carrying off their dead in time of battle. Col. Harrod's fort was then defended by only 65 men, and Boonsborough by 22, there being no more forts or white men in the country, except at the falls, a considerable distance from these; and all taken collectively, were but a handful to the numerous warriors that were everywhere dispersed through the country, intent upon doing all the mischief that savage barbarity could invent. Thus we passed through a scene of sufferings that exceeds description.

On the 25th of this month, a reinforcement of 45 men arrived from North-Carolina, and about the 20th of August following,

following, col. Bowman arrived with 100 men from Virginia. Now we began to strengthen, and from hence, for the space of 6 weeks, we had skirmishes with Indians, in one quarter or other, almost every day.

The savages now learned the superiority of the Long Knife, as they call the Virginians, by experience, being out-generalled in almost every battle. Our affairs began to wear a new aspect, and the enemy, not daring to venture on open war, practised secret mischief at times.

On the first day of January 1778, I went with a party of 30 men to the Blue licks, on Licking river, to make salt for the different garrisons in the country.

On the 7th day of February, as I was hunting to procure meat for the company, I met with a party of 102 Indians, and 2 Frenchmen, on their march against Boonsborough, that place being particularly the object of the enemy.

They pursued, and took me; and brought me on the 8th day to the licks, where 27 of my party were, 3 of them having previously returned home with the salt. I, knowing it was impossible for them to escape, capitulated with the enemy, and, at a distance in their view, gave notice to my men of their situation, with orders not to resist, but surrender themselves captives.

The generous usage the Indians had promised before in my capitulation, was afterwards fully complied with, and we proceeded with them as prisoners to Old Chelicothe, the principal indian town on Little Miami, where we arrived, after an uncomfortable journey in very severe weather, on the 18th day of February, and received as good treatment as prisoners could expect from savages.—On the 10th day of March following, I and ten of my men were conducted by 40 Indians to Detroit, where we arrived the 30th day, and were treated by governor Hamilton, the british commander at that post, with great humanity.

During our travels, the Indians entertained me well; and
their

their affection for me was so great, that they utterly refused to leave me there with the others, although the governor offered them 100 pounds sterling for me, on purpose to give me a parole to go home. Several english gentlemen there, being sensible of my adverse fortune, and touched with human sympathy, generously offered a friendly supply for my wants, which I refused, with many thanks for their kindness: adding, that I never expected it would be in my power to recompense such unmerited generosity.

The Indians left my men in captivity with the British at Detroit, and on the 10th day of April brought me towards Old Chelicothe, where we arrived on the 25th day of the same month. This was a long and fatiguing march, through an exceeding fertile country, remarkable for fine springs and streams of water. At Chelicothe I spent my time as comfortably as I could expect; was adopted, according to their custom, into a family, where I became a son, and had a great share in the affection of my new parents, brothers, sisters, and friends. I was exceedingly familiar and friendly with them, always appearing as cheerful and satisfied as possible, and they put great confidence in me. I often went a hunting with them, and frequently gained their applause for my activity at our shooting-matches. I was careful not to exceed many of them in shooting; for no people are more envious than they in this sport. I could observe, in their countenances and gestures, the greatest expressions of joy when they exceeded me; and, when the reverse happened, of envy. The shawanese king took great notice of me, and treated me with profound respect and entire friendship, often entrusting me to hunt at my liberty. I frequently returned with the spoils of the woods, and as often presented some of what I had taken to him, expressive of duty to my sovereign. My food and lodging were in common with them; not so good indeed as I could desire, but necessity made every thing acceptable.

I now began to meditate an escape, and carefully avoided their suspicions, continuing with them at Old Chelicothe until the first day of June following, and then was taken by them to the salt springs on Sciota, and kept there, making salt, ten days. During this time I hunted some for them, and found the land, for a great extent about this river, to exceed the soil of Kentucky, if possible, and remarkably well watered.

When I returned to Chelicothe, alarmed to see 450 Indians, of their choicest warriors, painted and armed in a fearful manner, ready to march against Boonsborough, I determined to escape the first opportunity.

On the 16th, before run-rise, I departed in the most secret manner, and arrived at Boonsborough on the 20th, after a journey of 160 miles; during which, I had but one meal.

I found our fortress in a bad state of defence; but we proceeded immediately to repair our flanks, strengthen our gates and posterns, and form double bastions, which we completed in 10 days. In this time we daily expected the arrival of the indian army; and at length, one of my fellow-prisoners, escaping from them, arrived, informing us that the enemy had, on account of my departure, postponed their expedition three weeks.—The Indians had spies out viewing our movements, and were greatly alarmed with our increase in number and fortifications. The grand councils of the nations were held frequently, and with more deliberation than usual. They evidently saw the approaching hour when the Long Knife would dispossess them of their desirable habitations; and, anxiously concerned for futurity, determined utterly to extirpate the whites out of Kentucky. We were not intimidated by their movements, but frequently gave them proofs of our courage.

About the first of August, I made an incursion into the indian country, with a party of 19 men, in order to surprise a small town up Sciota, called Paint-creek-town.

We

We advanced within 4 miles thereof, where we met a party of 30 Indians on their march against Boonsborough, intending to join the others from Chelicothe. A smart fight ensued betwixt us for some time: at length the savages gave way, and fled. We had no loss on our side: the enemy had one killed and two wounded. We took from them three horses, and all their baggage; and being informed, by two of our number that went to their town, that the Indians had entirely evacuated it, we proceeded no further, and returned with all possible expedition to assist our garrison against the other party. We passed by them on the sixth day, and on the seventh we arrived safe at Boonsborough.

On the eighth, the indian army arrived, being 444 in number, commanded by capt. Duquesne, 11 other Frenchmen, and some of their own chiefs, and marched up within view of our fort, with british and french colours flying; and having sent a summons to me, in his britannic majesty's name, to surrender the fort, I requested two days consideration, which was granted.

It was now a critical period with us.—We were a small number in the garrison:—a powerful army before our walls, whose appearance proclaimed inevitable death, fearfully painted, and marking their footsteps with desolation. Death was preferable to captivity, and if taken by storm, we must inevitably be devoted to destruction. In this situation we concluded to maintain our garrison, if possible. We immediately proceeded to collect what we could of our horses and other cattle, and bring them through the posterns into the fort: and in the evening of the ninth, I returned answer, that we were determined to defend our fort while a man was living.—“Now,” said I to their commander, who stood attentively hearing my sentiments, “we laugh at all your formidable preparations: but thank you for giving us notice and time to provide for our defence. Your efforts will not prevail; for our gates shall

shall for ever deny you admittance."—Whether this answer affected their courage, or not, I cannot tell; but, contrary to our expectations, they formed a scheme to deceive us, declaring it was their orders, from governor Hamilton, to take us captives, and not to destroy us; but if nine of us would come out, and treat with them, they would immediately withdraw their forces from our walls, and return home peaceably. This sounded grateful in our ears, and we agreed to the proposal.

We held the treaty within 60 yards of the garrison, on purpose to divert them from a breach of honour, as we could not avoid suspicions of the savages. In this situation the articles were formally agreed to, and signed; and the Indians told us it was customary with them, on such occasions, for two Indians to shake hands with every white man in the treaty, as an evidence of entire friendship. We agreed to this also, but were soon convinced their policy was to take us prisoners.—They immediately grappled us; but although surrounded by hundreds of savages, we extricated ourselves from them, and escaped all safe into the garrison, except one that was wounded, through a heavy fire from their army. They immediately attacked us on every side, and a constant heavy fire ensued between us, day and night, for the space of nine days.

In this time the enemy began to undermine our fort, which was situated 60 yards from Kentucky river. They began at the water-mark, and proceeded in the bank some distance, which we understood by their making the water muddy with the clay; and we immediately proceeded to disappoint their design, by cutting a trench across their subterranean passage. The enemy discovering our counter-mine, by the clay we threw out of the fort, desisted from that stratagem; and experience now fully convincing them that neither their power nor policy could effect their purpose,

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on the twentieth day of August they raised the siege, and departed.

During this siege, which threatened death in every form, we had 2 men killed, and 4 wounded, besides a number of cattle. We killed of the enemy 37, and wounded a great number. After they were gone, we picked up 125 pounds weight of bullets, besides what stuck in the logs of our fort; which certainly is a great proof of their industry. Soon after this, I went into the settlement, and nothing worthy of a place in this account passed in my affairs for some time.

During my absence from Kentucky col. Bowman carried on an expedition against the Shawanese, at Old Chelicothe, with 160 men, in July 1779. Here they arrived undiscovered, and a battle ensued, which lasted until ten o'clock, A. M. when col. Bowman, finding he could not succeed at this time, retreated about 30 miles. The Indians, in the mean time, collecting all their forces, pursued and overtook him, when a smart fight continued near two hours, not to the advantage of col. Bowman's party.

Col. Harrod proposed to mount a number of horse, and furiously to rush upon the savages, who at this time fought with remarkable fury. This desperate step had a happy effect, broke their line of battle, and the savages fled on all sides. In these two battles we had 9 killed and 1 wounded. The enemy's loss uncertain, only 2 scalps being taken.

On the twenty-second day of June 1780, a large party of Indians and Canadians, about 600 in number, commanded by col. Bird, attacked Riddle's and Martin's stations, at the forks of Licking river, with six pieces of artillery. They carried this expedition so secretly, that the unwary inhabitants did not discover them, until they fired upon the forts; and, not being prepared to oppose them, were obliged to surrender themselves miserable captives to barbarous savages,

savages, who immediately after tomahawked one man and two women, and loaded all the others with heavy baggage, forcing them along toward their towns, able or unable to march. Such as were weak and faint by the way, they tomahawked. The tender women, and helpless children, fell victims to their cruelty. This, and the savage treatment they received afterwards, is shocking to humanity, and too barbarous to relate.

The hostile disposition of the savages, and their allies, caused general Clark, the commandant at the falls of the Ohio, immediately to begin an expedition with his own regiment, and the armed force of the country, against Pecaway, the principal town of the Shawanese, on a branch of Great Miami, which he finished with great success, took 17 scalps, and burnt the town to ashes, with the loss of 17 men.

About this time I returned to Kentucky with my family; and here, to avoid an inquiry into my conduct, the reader being before informed of my bringing my family to Kentucky, I am under the necessity of informing him that, during my captivity with the Indians, my wife, who despaired of ever seeing me again, expecting the Indians had put a period to my life, oppressed with the distresses of the country, and bereaved of me, her only happiness, had, before I returned, transported my family and goods, on horses, through the wilderness, amidst a multitude of dangers, to her father's house in North-Carolina.

Shortly after the troubles at Boonsborough, I went to them, and lived peaceably there until this time. The history of my going home, and returning with my family, forms a series of difficulties, an account of which would swell a volume, and being foreign to my purpose, I shall purposely omit them.

I settled my family in Boonsborough once more; and shortly after, on the 6th day of October 1780, I went in

company with my brother to the Blue licks; and, on our return home, we were fired upon by a party of Indians. They shot him, and pursued me, by the scent of their dog, three miles; but I killed the dog, and escaped. The winter soon came on, and was very severe, which confined the Indians to their wigwams.

The severity of this winter caused great difficulties in Kentucky. The enemy had destroyed most of the corn the summer before. This necessary article was scarce and dear; and the inhabitants lived chiefly on the flesh of buffalo. The circumstances of many were very lamentable: however, being a hardy race of people, and accustomed to difficulties and necessities, they were wonderfully supported through all their sufferings, until the ensuing autumn, when we received abundance from the fertile soil.

Towards spring, we were frequently harassed by Indians; and, in May, 1782, a party assaulted Ashton's station, killed one man, and took a negro prisoner. Capt. Ashton, with 25 men, pursued, and overtook the savages, a smart fight ensued, which lasted two hours; but they being superior in number, obliged captain Ashton's party to retreat, with the loss of 8 killed, and 4 mortally wounded; their brave commander himself being numbered among the dead.

The Indians continued their hostilities; and, about the 10th of August following, two boys were taken from major Hoy's station. This party was pursued by capt. Holder and 17 men, who were also defeated, with the loss of 4 men killed and 1 wounded. Our affairs became more and more alarming. Several stations which had lately been erected in the country were continually infested with savages, stealing their horses and killing the men at every opportunity. In a field near Lexington, an Indian shot a man, and running to scalp him, was himself shot from the fort, and fell dead upon his enemy.

Every day we experienced recent mischiefs. The barba

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rous savage nations of Shawanese, Cherokees, Wyandots, Tawas, Delawares, and several others near Detroit, united in a war against us, and assembled their choicest warriors at Old Chelicothe, to go on the expedition, in order to destroy us, and entirely depopulate the country. Their savage minds were inflamed to mischief by two abandoned men, captains M'Kee and Girty. These led them to execute every diabolical scheme; and on the 15th day of August, commanded a party of Indians and Canadians, of about 500 in number, against Briant's station, 5 miles from Lexington. Without demanding a surrender, they furiously assaulted the garrison, which was happily prepared to oppose them; and after they had expended much ammunition in vain, and killed the cattle round the fort, not being likely to make themselves masters of this place, they raised the siege, and departed in the morning of the third day after they came, with the loss of about 30 killed, and the number of wounded uncertain.—Of the garrison 4 were killed, and 3 wounded.

On the 18th day col. Todd, col. Trigg, major Harland, and myself, speedily collected 176 men, well armed, and pursued the savages. They had marched beyond the Blue licks to a remarkable bend of the main fork of Licking river, about 43 miles from Lexington, where we overtook them on the 19th day. The savages observing us, gave way: and we, being ignorant of their numbers, passed the river. When the enemy saw our proceedings, having greatly the advantage of us in situation, they formed the line of battle, from one bend of Licking to the other, about a mile from the Blue licks. An exceeding fierce battle immediately began, for about 15 minutes, when we, being overpowered by numbers, were obliged to retreat, with the loss of 67 men, 7 of whom were taken prisoners. The brave and much-lamented colonels Todd and Trigg, major Harland, and my second son, were among the dead. We were informed that

the Indians, numbering their dead, found they had 4 killed more than we ; and therefore, 4 of the prisoners they had taken were, by general consent, ordered to be killed, in a most barbarous manner, by the young warriors, in order to train them up to cruelty ; and then they proceeded to their towns.

On our retreat we were met by col. Logan, hastening to join us, with a number of well-armed men. This powerful assistance we unfortunately wanted in the battle ; for notwithstanding the enemy's superiority of numbers, they acknowledged that, if they had received one more fire from us, they should undoubtedly have given way. So valiantly did our small party fight, that, to the memory of those who unfortunately fell in the battle, enough of honour cannot be paid. Had col. Logan and his party been with us, it is highly probable we should have given the savages a total defeat.

I cannot reflect upon this dreadful scene, but sorrow fills my heart. A zeal for the defence of their country led these heroes to the scene of action, though with a few men to attack a powerful army of experienced warriors. When we gave way they pursued us with the utmost eagerness, and in every quarter spread destruction. The river was difficult to cross, and many were killed in the flight, some just entering the river, some in the water, others after crossing, in ascending the cliffs. Some escaped on horseback, a few on foot ; and, being dispersed everywhere in a few hours, brought the melancholy news of this unfortunate battle to Lexington. Many widows were now made. The reader may guess what sorrow filled the hearts of the inhabitants, exceeding any thing that I am able to describe. Being reinforced, we returned to bury the dead, and found their bodies strewn everywhere, cut and mangled in a dreadful manner. This mournful scene exhibited a horror almost unparalleled : some torn and eaten by wild beasts ;
those

those in the river eaten by fishes; all in such a putrified condition, that no one could be distinguished from another.

As soon as general Clark, then at the falls of the Ohio, who was ever our ready friend, and merits the love and gratitude of all his countrymen, understood the circumstances of this unfortunate action, he ordered an expedition, with all possible haste, to pursue the savages, which was so expeditiously effected, that we overtook them within 2 miles of their towns, and probably might have obtained a great victory, had not two of their number met us about 200 poles before we came up. These returned quick as lightning to their camp with the alarming news of a mighty army in view. The savages fled in the utmost disorder, evacuated their towns, and reluctantly left their territory to our mercy. We immediately took possession of Old Chelicothe, without opposition, being deserted by its inhabitants. We continued our pursuit through five towns on the Miami rivers, Old Chelicothe, Pecaway, New Chelicothe, Will's Towns, and Chelicothe, burnt them all to ashes, entirely destroyed their corn, and other fruits, and everywhere spread a scene of desolation in the country. In this expedition we took 7 prisoners and 5 scalps, with the loss of only 4 men, 2 of whom were accidentally killed by our own army.

This campaign in some measure damped the spirits of the Indians, and made them sensible of our superiority. Their connexions were dissolved, their armies scattered, and a future invasion put entirely out of their power; yet they continued to practise mischief secretly upon the inhabitants in the exposed parts of the country.

In October following, a party made an excursion into that district called the Crab Orchard, and one of them, being advanced some distance before the others, boldly entered the house of a poor defenceless family, in which was only a negro man, a woman and her children, terrified with the apprehensions of immediate death. The savage, perceiving

their defenceless situation, without offering violence to the family, attempted to captivate the negro, who happily proved an over-match for him, threw him on the ground, and, in the struggle, the mother of the children drew an axe from a corner of the cottage, and cut his head off, while her little daughter shut the door. The savages instantly appeared, and applied their tomahawks to the door. An old rusty gun-barrel, without a lock, lay in a corner, which the mother put through a small crevice, and the savages perceiving it, fled. In the mean time the alarm spread through the neighbourhood; the armed men collected immediately, and pursued the ravagers into the wilderness. Thus Providence, by the means of this negro, saved the whole of the poor family from destruction. From that time, until the happy return of peace between the United States and Great Britain, the Indians did us no mischief. Finding the great king beyond the water disappointed in his expectations, and conscious of the importance of the Long Knife, and their own wretchedness, some of the nations immediately desired peace; to which, at present, they seem universally disposed, and are sending ambassadors to general Clark, at the falls of the Ohio, with the minutes of their councils; a specimen of which, in the minutes of the Piankashaw council, is subjoined.

To conclude, I can now say that I have verified the saying of an old Indian who signed col. Henderson's deed. Taking me by the hand, at the delivery thereof, "Brother," says he, "we have given you a fine land, but I believe you will have much trouble in settling it."—My footsteps have often been marked with blood, and therefore I can truly subscribe to its original name. Two darling sons, and a brother, have I lost by savage hands, which have also taken from me 40 valuable horses, and abundance of cattle. Many dark and sleepless nights have I been a companion for owls, separated from the cheerful society of men, scorched by the
summer's

summer's sun, and pinched by the winter's cold, an instrument ordained to settle the wilderness. But now the scene is changed : peace crowns the sylvan shade.

What thanks, what ardent and ceaseless thanks, are due to that all-superintending Providence which has turned a cruel war into peace, brought order out of confusion, made the fierce savages placid, and turned away their hostile weapons from our country ! May the same almighty goodness banish the accursed monster, war, from all lands, with her hated associates, rapine and insatiable ambition ! Let peace, descending from her native heaven, bid her olives spring amidst the joyful nations ; and plenty, in league with commerce, scatter blessings from her copious hand !

This account of my adventures will inform the reader of the most remarkable events of this country.—I now live in peace and safety, enjoying the sweets of liberty, and the bounties of Providence, with my once fellow-sufferers, in this delightful country, which I have seen purchased with a vast expence of blood and treasure, delighting in the prospect of its being, in a short time, one of the most opulent and powerful states on the continent of North America ; which, with the love and gratitude of my countrymen, I esteem a sufficient reward for all my toil and dangers.

DANIEL BOON.

Fayette county, Kentucky.

PIANKASHAW COUNCIL.

In a council, held with the Piankashaw Indians, by Tho. J. Dalton, at post St. Vincent's, April 15, 1784.

My children,

WHAT I have often told you, is now come to pass. This day I received news from my great chief, at the falls of Ohio. Peace is made with the enemies of America. The

white flesh, the Americans, French, Spaniards, Dutch, and English, this day smoke out of the peace-pipe. The tomahawk is buried, and they are now friends.

I am told the Shawanese, Delawares, Chickasaws, Cherokees, and all other the red flesh, have taken the Long Knife by the hand. They have given up to them the prisoners that were in their nations.

My children on Wabash,

Open your ears, and let what I tell you sink deep in your hearts. You know me. Near 20 years I have been among you. The Long Knife is my nation. I know their hearts; peace they carry in one hand, and war in the other.

I leave you to yourselves to judge. Consider, and now accept the one, or the other. We never beg peace of our enemies. If you love your women and children, receive the belt of wampum I present you. Return me my flesh you have in your villages, and the horses you stole from my people at Kentucky. Your corn-fields were never disturbed by the Long Knife. Your women and children lived quiet in their houses, while your warriors were killing and robbing my people. All this you know is the truth. This is the last time I shall speak to you. I have waited 6 moons to hear you speak, and to get my people from you. In 10 nights I shall leave the Wabash to see my great chief at the falls of Ohio, where he will be glad to hear, from your own lips, what you have to say. Here is tobacco I give you: smoke; and consider what I have said.—Then I delivered one belt of blue and white wampum; and said, Piankashaw, speak, speak to the Americans.

Then the Piankashaw chief answered;

My great father, the Long Knife,

You have been many years among us. You have suffered by us. We still hope you will have pity and compassion upon us, on our women and children; the day is clear. The sun shines on us; and the good news of peace appears

pears in our faces. This day, my father, this is the day of joy to the Wabash Indians. With one tongue we now speak.

We accept your peace-belt. We return God thanks, you are the man that delivered us, what we long wished for, peace with the white flesh. My father, we have many times counselled before you knew us ; and you know how some of us suffered before.

We received the tomahawk from the English : poverty forced us to it : we were attended by other nations : we are sorry for it : we this day collect the bones of our friends that long ago were scattered upon the earth. We bury them in one grave. We thus plant the tree of peace, that God may spread branches ; so that we can all be secured from bad weather. They smoke as brothers out of the peace-pipe we now present you. Here, my father, is the pipe that gives us joy. Smoke out of it. Our warriors are glad you are the man we present it to. You see, father, we have buried the tomahawk : we now make a great chain of friendship never to be broken ; and now, as one people, smoke out of your pipe. My father, we know God was angry with us for stealing your horses, and disturbing your people. He has sent us so much snow and cold weather, that God himself killed all your horses with our own.

We are now a poor people. God, we hope, will help us : and our father, the Long Knife, will have pity and compassion on our women and children. Your flesh, my father, is well that is among us ; we shall collect them all together when they come in from hunting. Be not sorry, my father : all the prisonerstaken at Kentucky are alive and well ; we love them, and so do our young women.

Some of your people mend our guns, and others tell us they can make rum of the corn. Those are now the same as we. In one moon after this, we will go with them to their friends at Kentucky. Some of your people will now go,
with

with Costea, a chief of our nation, to see his great father, the Long Knife, at the falls of Ohio.

My father,

This being the day of joy to the Wabash Indians, we beg a little drop of your milk, to let our warriors see it came from your own breast. We were born and raised in the woods; we could never learn to make rum.—God has made the white flesh masters of the world: they make every thing; and we all love rum. —

Then they delivered three strings of blue and white wampum and the coronet of peace.

Present in Council,

Muskito, capt. Beaver, Woodes and Burning, Badtripes, Antia, Mantour, Castia, Grand Court, with many other chiefs and war captains, and the principal inhabitants of the post of St. Vincent's.

OF THE INDIANS.

WE have an account of 28 different nations of Indians, eastward of the Mississippi.—Their situation is as follows:

The Cherokee Indians are nearest to Kentucky, living upon the Tenaſsee river, near the mouths of Clinch, Holston, Nolachucky, and Frenchbroad rivers, which form the Tenaſsee or Cherokee river, in the interior part of North-Carolina, 200 miles from Kentucky.

The Chickamawgees live about 90 miles down the Tenaſsee from the Cherokees, at a place called Chickamawgee, which in our language signifies a boiling pot, there being a whirlpool in the river dangerous for boats. The dragomonough, a chief of the Cherokees, with 60 more, broke off from that nation, and formed this tribe, which is called by the name of the Whirlpool.

The

The Cheegees, and Middle-settlement Indians, are settled about 50 and 80 miles south of the Cherokee.—These four tribes speak one language, being descended from the Cherokees.

The Chickasaws inhabit about 100 miles N. W. from our settlement at French lick, on Cumberland river, on the heads of a river called Tombeche, which runs into Mobile bay.

The Choctaw nation are 80 miles from the Chickasaws, down the same river.

The Creek Indians live about 160 miles south of the Choctaws on the Apalache river, which runs into the gulf of Mexico, some little distance east of Mobile bay.

The Uchees Indians occupy four different places of residence, at the head of St. John's, the fork of St. Mary's, the head of Cannuchee, and the head of St. Tillis. These rivers rise on the borders of Georgia, and run separately into the ocean.

The Catauba Indians are settled in North-Carolina, about 200 miles distant from Charles-town in South Carolina.

The tribes to the westward of Ohio river are the Delawares, living upon the Muskingum river, which runs into the Ohio 187 miles above Sciota on the N. W. side.

The Mingo nation lives upon a N. W. branch of Sciota river, as is represented in the map.

The Wyandotts possess the banks of a river called Sandusky, which heads and interlocks with Sciota, and, running in a contrary direction nearly N. W. for a great distance, falls into lake Erie.

The Six-Nations are settled upon waters running into lake Ontario that head in the mountain from whence the Ohio and Susquehanna rivers rise.

The Shawanese Indians occupy five towns on the waters of little and great Miami, as appears in the map.

The Gibbaways are fixed on the east side of Detroit river,
and

and opposite the fort of that name. This river runs out of lake Huron into lake Erie, is 36 miles in length, and the fort stands on the west side, half way betwixt these lakes.

The Hurons live six miles from the Gibbaways, towards lake Huron, and on the same side of the river.

The Tawaws are found 18 miles up the Mawmee or Omeé river, which runs into lake Erie.

There is a small tribe of Tawas settled at a place called the Rapids, some distance higher up the river than the former.

The Mawmee Indians live 240 miles up this river, at a place called Rosedebeau.

The Piankashaws reside about 160 miles up Wabash river:—

The Vermilion Indians about 60 miles higher;—and the Wyahthinaws about 30 miles still further up the same river.

The Wabash heads and interlocks with Mawmee, and runs a contrary direction into Ohio, 318 miles below the falls.

The Long-isle or Isle-river Indians live on Isle, or White river, which runs into Wabash.

The Kickapoos are fixed on a branch of Mawmee river above the Long-isle Indians.

The Ozaw nation lives on the Ozaw river, which runs into Mississippi:—

And the Kakasky nation, on the Mississippi, 200 miles above the Ozaws.

The Illinois Indians inhabit upon the Illinois river, which falls into the Mississippi;—

And the Poutawottamies near St. Joseph's, a town on a branch of the Illinois.

The Sioux and Renards are neighbours to the fort of Michillimackinac, on lake Michigan.

These are the principal part of the nations within the limits of the United States. Allowing about 700 to a nation

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tion or tribe, they will contain, in all, 20,000 souls, and consequently may furnish between 4 and 5,000 warriors.

The speculations of curious idleness have framed many systems to account for the population of this immense continent. There is scarce a people in the old world which has not had its advocates; and there have not been wanting some, who, despairing to untie, have cut the knot, by supposing that the power which furnished America with plants, has in the same manner supplied it with men; or at least, that a remnant in this continent was saved from the universal deluge, as well as in the other. As this subject is rather curious than useful, and, in its very nature, does not admit of certainty, every thing that passed in America before the arrival of the Europeans being plunged in cimmerian darkness, except those little traditional records, which diffuse a glimmering light on the two empires of Mexico and Peru, for about 200 years at most before that period, we shall only slightly touch on that subject; chiefly for the sake of taking notice of some modern discoveries which seem to strengthen the probability of some former theories. The great similarity, or rather identity, of the persons and manners of the Americans, and those of the Tartars of the north-eastern parts of Asia, together with a presumption, which has long possessed the learned, that Asia and America were united, or at least separated only by a narrow sea, has inclined the more reflecting part of mankind to the opinion, that the true origin of the Indians is from this quarter. The immense seas, which separate the two continents on every other side, render it highly improbable that any colonies could ever have been sent across them before the discovery of the magnetical compass. The ingenious M. Buffon too has remarked, and the observation appears to be just, that there are no animals inhabiting in common the two continents, but such as can bear the colds of the north. Thus
there

there are no elephants, no lions, no tigers, no camels in America; but bears, wolves, deer, and elks in abundance, absolutely the same in both hemispheres. This hypothesis, which has been gaining ground ever since its first appearance in the world, is now reduced almost to a certainty by the late discoveries of capt. Cook. That illustrious, but unfortunate navigator, in his last voyage, penetrated for a considerable distance into the strait which divides Asia from America, which is only six leagues wide at its mouth; and therefore easily practicable for canoes. We may now therefore conclude, that no farther inquiry will ever be made into the general origin of the american tribes.

Yet, after all, it is far from being improbable that various nations, by shipwreck, or otherwise, may have contributed, in some degree, to the population of this continent. The Carthaginians, who had many settlements on the coast of Africa, beyond the straits of Gibraltar, and pushed their discoveries as far as where the two continents in that quarter approach each other the nearest, may probably have been thrown by tempests on the american coast, and the companies of the vessels finding it impracticable to return, may have incorporated with the former inhabitants, or have formed new settlements, which, from want of the necessary instruments to exercise the arts they were acquainted with, would naturally degenerate into barbarity. There are indeed some ancient writers, who give us reason to suppose, that there were colonies regularly formed by that nation in America, and that the communication, after having continued for some time, was stopped by order of the state. But it is difficult to conceive that any people, established with all those necessities proper for their situation, should ever degenerate, from so high a degree of cultivation as the Carthaginians possessed, to a total ignorance even of the most necessary arts: and therefore it seems probable,

bable, that if that nation ever had such colonies, they must have been cut off by the natives, and every vestige of them destroyed.

About the ninth and tenth centuries, the Danes were the greatest navigators in the universe. They discovered and settled Iceland; and from thence, in 964, planted a colony in Greenland. The ancient icelandic chronicles, as reported by M. Mallet, contain an account of some Icelanders, who, in the close of an unsuccessful war, fled to Greenland, and from thence westward, to a country covered with vines, which from thence they called Vinland.

The adventurers returned home, and conducted a colony to their new discovery; but disturbances arising in Denmark, all communication with Greenland, as well as Vinland, ceased; and those countries remained unknown to the rest of the world for several ages. The remains of this colony are probably to be found on the coast of Labrador, in the nation of the Esquimaux. The colour of their skins, their hairy bodies and bushy beards, not to mention the difference of manners, mark an origin totally distinct from that of the other Indians.

In the year 1170, Madoc, son of Owen Gwynnedh, prince of Wales, dissatisfied with the situation of affairs at home, left his country, as related by the welsh historians, in quest of new settlements, and leaving Ireland to the north, proceeded west till he discovered a fertile country; where, leaving a colony, he returned, and persuading many of his countrymen to join him, put to sea with 10 ships, and was never more heard of.

This account has at several times drawn the attention of the world; but as no vestiges of them had then been found, it was concluded, perhaps too rashly, to be a fable, or, at least, that no remains of the colony existed. Of late years, however, the western settlers have received frequent accounts of a nation, inhabiting at a great distance up the
Missouri,

Missouri, in manners and appearance resembling the other Indians, but speaking welsh, and retaining some ceremonies of the christian worship; and at length this is universally believed there to be a fact.

Captain Abraham Chaplain, of Kentucky, a gentleman whose veracity may be entirely depended upon, assured the author, that in the late war, being with his company in garrison at Kaskasky, some Indians came there, and, speaking in the welsh dialect, were perfectly understood and conversed with by two Welshmen in his company, and that they informed them of the situation of their nation as mentioned above.

The author is sensible of the ridicule which the vain and the petulant may attempt to throw on this account; but as truth only has guided his pen, he is regardless of the consequences, and flatters himself, that, by calling the attention of mankind once more to this subject, he may be the means of procuring a more accurate inquiry into its truth, which, if it should even refute the story of the Welsh, will at least perform the important service to the world, of promoting a more accurate discovery of this immense continent.

There are several ancient remains in Kentucky, which seem to prove, that this country was formerly inhabited by a nation farther advanced in the arts of life than the Indians. These are there usually attributed to the Welsh, who are supposed to have formerly inhabited here; but having been expelled by the natives, were forced to take refuge near the sources of the Missouri.

It is well known, that no indian nation has ever practised the method of defending themselves by entrenchments; and such a work would even be no easy one, while these nations were unacquainted with the use of iron.

In the neighbourhood of Lexington, the remains of two ancient fortifications are to be seen, furnished with ditches
and

and bastions. One of these contains about six acres of land, and the other nearly three. They are now overgrown with trees, which, by the number of circles in the wood, appear to be not less than 160 years old. Pieces of earthen vessels have also been plowed up near Lexington, a manufacture with which the Indians were never acquainted.

The burying-grounds, which were mentioned above, under the head of Curiosities, form another strong argument that this country was formerly inhabited by a people different from the present Indians. Although they do not discover any marks of extraordinary art in the structure, yet, as many nations are particularly tenacious of their ancient customs, it may perhaps be worthy of inquiry, whether these repositories of the dead do not bear a considerable resemblance to the ancient british remains. Some buildings, attributed to the Picts, are mentioned by the scottish antiquaries, which, if the author mistakes not, are formed nearly in the same manner. Let it be enough for him to point out the road, and hazard some uncertain conjectures. The day is not far distant, when the farthest recesses of this continent will be explored, and the accounts of the Welsh established beyond the possibility of a doubt, or consigned to that oblivion which has already received so many suppositions founded on arguments as plausible as these.

PERSONS AND HABITS.

THE Indians are not born white; and take a great deal of pains to darken their complexion, by anointing themselves with grease, and lying in the sun. They also paint their faces, breasts, and shoulders, of various colours, but generally red; and their features are well formed, especially those of the women. They are of a middle stature, their limbs clean and straight, and scarcely any crooked or deformed person is to be found among them. In many parts of their bodies they prick in gun-powder in very pretty

figures. They shave, or pluck the hair off their heads, except a patch about the crown, which is ornamented with beautiful feathers, beads, wampum, and such-like baubles. Their ears are pared, and stretched in a thong down to their shoulders. They are wound round with wire to expand them, and adorned with silver pendants, rings, and bells, which they likewise wear in their noses. Some of them will have a large feather through the cartilage of the nose; and those who can afford it, wear a collar of wampum, a silver breastplate, and bracelets, on the arms and wrists. A bit of cloth about the middle, a shirt of the english make, on which they bestow innumerable broaches to adorn it, a sort of cloth boots and mockasons, which are shoes of a make peculiar to the Indians, ornamented with porcupine quills, with a blanket or match-coat thrown over all, completes their dress at home; but when they go to war, they leave their trinkets behind, and mere necessities serve them. There is little difference between the dress of the men and women, excepting that a short petticoat, and the hair, which is exceeding black and long, clubbed behind, distinguish some of the latter. Except the head and eyebrows, they pluck the hair, with great diligence, from all parts of the body, especially the looser part of the sex.

Their warlike arms are guns, bows and arrows, darts, scalping-knives, and tomahawks. This is one of their most useful pieces of field furniture, serving all the offices of the hatchet, pipe, and sword. They are exceedingly expert in throwing it, and will kill at a considerable distance. The world has no better marksmen, with any weapon. They will kill birds flying, fishes swimming, and wild beasts running.

GENIUS.

THE Indians are not so ignorant as some suppose them, but are a very understanding people, quick of apprehension, sudden in execution, subtle in business, exquisite in invention,
and

and industrious in action. They are of a very gentle and amiable disposition to those they think their friends, but as implacable in their enmity; their revenge being only completed in the entire destruction of their enemies. They are very hardy, bearing heat, cold, hunger and thirst, in a surprising manner, and yet no people are more addicted to excess in eating and drinking, when it is conveniently in their power. The follies, nay mischief, they commit when inebriated, are entirely laid to the liquor; and no one will revenge any injury (murder excepted) received from one who is no more himself. Among the Indians, all men are equal, personal qualities being most esteemed. No distinction of birth, no rank, renders any man capable of doing prejudice to the rights of private persons; and there is no pre-eminence from merit, which begets pride, and which makes others too sensible of their own inferiority. Though there is perhaps less delicacy of sentiment in the Indians than amongst us; there is, however, abundantly more probity, with infinitely less ceremony, or equivocal compliments. Their public conferences shew them to be men of genius; and they have, in a high degree, the talent of natural eloquence.

They live dispersed in small villages, either in the woods, or on the banks of rivers, where they have little plantations of indian corn, and roots, not enough to supply their families half the year, and subsisting the remainder of it by hunting, fishing, and fowling, and the fruits of the earth, which grow spontaneously in great plenty.

Their huts are generally built of small logs, and covered with bark, each one having a chimney, and a door, on which they place a padlock.

Old Chelicothe is built in form of a Kentucky station, that is, a parallelogram, or long square; and some of their houses are shingled. A long council-house extends the whole length of the town, where the king and chiefs of the

nation frequently meet, and consult of all matters of importance, whether of a civil or military nature.

Some huts are built by setting up a frame on forks, and placing bark against it; others of reeds, and surrounded with clay. The fire is in the middle of the wigwam, and the smoke passes through a little hole. They join reeds together by cords run through them, which serve them for tables and beds. They mostly lie upon skins of wild beasts, and sit on the ground. They have brass kettles and pots to boil their food; gourds or calabashes, cut asunder, serve them for pails, cups, and dishes.

RELIGION.

THE accounts of travellers, concerning their religion, are various; and although it cannot be absolutely affirmed that they have none, yet it must be confessed very difficult to define what it is. All agree that they acknowledge one supreme God, but do not adore him. They have not seen him, they do not know him, believing him to be too far exalted above them, and too happy in himself to be concerned about the trifling affairs of poor mortals. They seem also to believe in a future state, and that after death they shall be removed to their friends, who have gone before them, to an elysium, or paradise.

The Wyandotts, near Detroit, and some others, have the roman catholic religion introduced amongst them by missionaries. These have a church, a minister, and a regular burying-ground. Many of them appear zealous, and say prayers in their families. These, by acquaintance with white people, are a little civilized, which must of necessity precede christianity.

The Shawanese, Cherokees, Chickasaws, and some others, are little concerned about superstition, or religion. Others continue their former superstitious worship of the objects of their love and fear, and especially those beings whom they
most

most dread, and whom therefore we generally denominate devils ; though, at the same time, it is allowed they pray to the sun, and other inferior benevolent deities, for success in their undertakings, for plenty of food, and other necessaries in life.

They have their festivals, and other rejoicing-days, on which they sing and dance in a ring, taking hands, having so painted and disguised themselves, that it is difficult to know any of them ; and after enjoying this diversion for a while, they retire to the place where they have prepared a feast of fish, flesh, fowls, and fruits ; to which all are invited, and entertained with their country songs. They believe that there is great virtue in feasts for the sick. For this purpose, a young buck must be killed and boiled, the friends and near neighbours of the patient invited, and having first thrown tobacco on the fire, and covered it up close, they all sit down in a ring, and raise a lamentable cry. They then uncover the fire, and kindle it up ; and the head of the buck is first sent about, every one taking a bit, and giving a loud croak, in imitation of crows. They afterwards proceed to eat all the buck, making a most harmonious, melancholy song ; in which strain their music is particularly excellent.

As they approach their towns, when some of their people are lost in war, they make great lamentations for their dead, and bear them long after in remembrance.

Some nations abhor adultery, do not approve of a plurality of wives, and are not guilty of theft ; but there are other tribes not so scrupulous in these matters. Amongst the Chickasaws a husband may cut off the nose of his wife, if guilty of adultery ; but men are allowed greater liberty. This nation despises a thief. Among the Cherokees they cut off the nose and ears of an adulteress ; afterwards her husband gives her a discharge ; and from this time she is not permitted to refuse any one who presents himself. Forni-

cation is unnoticed ; for they allow persons in a single state unbounded freedom.

Their form of marriage is short—the man, before witnesses, gives the bride a deer's foot, and she, in return, presents him with an ear of corn, as emblems of their several duties.

The women are very slaves to the men ; which is a common case in rude, unpolished nations, throughout the world. They are charged with being revengeful ; but this revenge is only doing themselves justice on those who injure them and is seldom executed, but in cases of murder and adultery.

Their king has no power to put any one to death by his own authority ; but the murderer is generally delivered up to the friends of the deceased, to do as they please. When one kills another, his friend kills him, and so they continue until much blood is shed ; and at last the quarrel is ended by mutual presents. Their kings are hereditary, but their authority extremely limited. No people are a more striking evidence of the miseries of mankind in the want of government than they. Every chief, when offended, breaks off with a party, settles at some distance, and then commences hostilities against his own people. They are generally at war with each other. These are common circumstances amongst the Indians.

When they take captives in war, they are exceedingly cruel, treating the unhappy prisoners in such a manner, that death would be preferable to life. They afterwards give them plenty of food, load them with burdens, and when they arrive at their towns, they must run the gauntlet. In this, the savages exercise so much cruelty, that one would think it impossible they should survive their sufferings. Many are killed ; but if one outlives this trial, he is adopted into a family as a son, and treated with paternal kindness ; and if he avoids their suspicions of going away, is allowed the same privileges as their own people.

CONCLUSION.

HAVING finished my intended narrative, I shall close with a few observations on the happy circumstances that the inhabitants of Kentucky will probably enjoy, from the possession of a country so extensive and fertile.

There are four natural qualities necessary to promote the happiness of a country, viz. A good soil, air, water, and trade. These, taken collectively, excepting the latter, Kentucky possesses in a superior degree: and, agreeably to our description of the western trade, we conclude, that it will be nearly equal to any other on the continent of America, and the disadvantage it is subject to, be fully compensated by the fertility of the soil.

This fertile region, abounding with all the luxuries of nature, stored with all the principal materials for art and industry, inhabited by virtuous and ingenious citizens, must universally attract the attention of mankind, being situated in the central part of the extensive american empire (the limits of whose ample domains may be seen described in the second article of the late definitive treaty), where agriculture, industry, laws, arts and sciences, flourish; where afflicted humanity raises her drooping head; where springs a harvest for the poor; where conscience ceases to be a slave, and laws are no more than the security of happiness; where nature makes reparation for having created man; and government, so long prostituted to the most criminal purposes, establishes an asylum in the wilderness for the distressed of mankind.

The recital of your happiness will call to your country all the unfortunate of the earth, who, having experienced oppression, political or religious, will there find a deliverance from their chains. To you innumerable multitudes will emigrate from the hateful regions of despotism and tyranny; and you will surely welcome them as friends, as brothers;

you will welcome them to partake with you of your happiness.—Let the memory of Lycurgus, the spartan legislator, who banished covetousness and the love of gold from his country; the excellent Locke, who first taught the doctrine of toleration; the venerable Penn, the first who founded a city of brethren; and Washington, the defender and protector of persecuted liberty, be ever the illustrious examples of your political conduct. Avail yourselves of the benefits of nature, and of the fruitful country you inhabit.

Let the iron of your mines, the wool of your flocks, your flax and hemp, the skins of the savage animals that wander in your woods, be fashioned into manufactures, and take an extraordinary value from your hands. Then will you rival the superfluities of Europe, and know that happiness may be found, without the commerce so universally desired by mankind.

In your country, like the land of promise, flowing with milk and honey, a land of brooks of water, of fountains and depths, that spring out of vallies and hills, a land of wheat and barley, and all kinds of fruits, you shall eat bread without scarceness, and not lack anything in it; where you are neither chilled with the cold of capricorn, nor scorched with the burning heat of cancer; the mildness of your air so great, that you neither feel the effects of infectious fogs, nor pestilential vapours. Thus, your country, favoured with the smiles of heaven, will probably be inhabited by the first people the world ever knew.

ROAD from PHILADELPHIA to the falls of the OHIO by
land.

		M.	M. D.
FROM Philadelphia to Lancaster	-	66	
To Wright's on Susquehanna	-	10	76
York-town	- - -	12	88
Abbott's-town	- - -	15	103
			To

To Hunter's-town	-	-	-	10	113
the mountain at Black's gap	-	-	-	3	116
the other side of the mountain	-	-	-	7	123
the Stone-house tavern	-	-	-	25	148
Wadkin's ferry on Potowmac	-	-	-	14	162
Martinsburg	-	-	-	13	175
Winchester	-	-	-	20	195
Newtown	-	-	-	8	203
Stover's-town	-	-	-	10	213
Woodstock	-	-	-	12	225
Shanandoah river	-	-	-	15	240
the north branch of Shanandoah	-	-	-	29	269
Stanton	-	-	-	15	284
the north fork of James river	-	-	-	37	321
James river	-	-	-	18	339
Botetourt court-house	-	-	-	12	351
Woods's on Catauba river	-	-	-	21	372
Paterfon's on Roanoak	-	-	-	9	381
the Allegany mountain	-	-	-	8	389
New river	-	-	-	12	401
the forks of the road	-	-	-	16	417
Fort Chiffel	-	-	-	12	429
a stone mill	-	-	-	11	440
Boyd's	-	-	-	8	448
Head of Holston	-	-	-	5	453
Washington court-house	-	-	-	45	498
the block-house	-	-	-	35	533
Powel's mountain	-	-	-	33	566
Walden's ridge	-	-	-	3	569
the Valley station	-	-	-	4	573
Martin Cabbin's	-	-	-	25	598
Cumberland mountain	-	-	-	20	618
the ford of Cumberland river	-	-	-	13	631
the Flat lick	-	-	-	9	640
Stinking creek	-	-	-	2	642
Richland creek	-	-	-	7	649
Down Richland creek	-	-	-	8	657
Raccoon spring	-	-	-	6	663
Laurel river	-	-	-	2	665
Hazel patch	-	-	-	15	680
the ford on Rock Castle river	-	-	-	10	690
English's station	-	-	-	25	715
Col. Edwards's at Crab orchard	-	-	-	3	718
Whitley's station	-	-	-	5	723

To

To Logan's station	-	-	-	5	728
Clark's station	-	-	-	7	735
Crow's station	-	-	-	4	739
Harrod's station	-	-	-	3	742
Harland's	-	-	-	4	746
Harbison's	-	-	-	10	756
Bard's-town	-	-	-	25	781
the salt-works	-	-	-	25	806
the falls of the Ohio	-	-	-	20	826

Kentucky is situated about south, 60° west from Philadelphia, and, on a straight line, may be about 600 miles distant from that city.

ROAD and distances from PHILADELPHIA to PITTSBURG.

	M.	M. D.
From Philadelphia to Lancaster	66	
To Middle-town	26	92
Harris's ferry	10	102
Carlisle	17	119
Shippensburg	21	140
Chamber's-town	11	151
Fort Loudon	13	164
Fort Littleton	18	182
Juniata creek	19	201
Bedford	14	215
the foot of the Allegany mountains	15	230
Stony creek	15	245
the east side of Laurel hill	12	257
Fort Ligonier	9	266
Pittsburg	54	320

POSTSCRIPT.

IN order to communicate a distinct idea of the present complexion of the state of Kentucky, a map from the best authorities is annexed, from which you will discern that Kentucky is already divided into nine counties; viz. Jefferson, Fayette, Bourbon, Mercer, Nelson, Madison, Lincoln, Woodford, and Mason; and that villages are springing up in every part within its limits, while roads have been opened

88

39

27

38

To Logan's station	-	-	-	5	728
Clark's station	-	-	-	7	735
Crow's station	-	-	-	4	739
Harrod's station	-	-	-	3	742
Harland's	-	-	-	4	746
Harbison's	-	-	-	10	756
Bard's-town	-	-	-	25	781
the salt-works	-	-	-	25	806
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to shorten the distance to Virginia, and to smooth the rugged paths, which a short time since were our only tracts of communication from one place to another.

You must have observed in a note I annexed to my last letter, the security Kentucky enjoys from the cordon of troops extending upon the western side of the Ohio; and you have only to contemplate the advanced settlements on that side of the river, I presume, to become perfectly convinced of our permanent safety from the attacks of the Indians.

At the mouth of the great Kanhaway, a settlement has been formed, which, united with the settlements on Elk river, makes it sufficiently populous to become a distinct county of Virginia, by the name of Kanhaway: so that if you look on either quarter of Kentucky, you will find its frontiers are guarded by settlements nearly adult.

Galliopolis, upon the western side of the Ohio, a little below the mouth of the great Kanhaway, and extending to the Sciota river, settled by the French, forms a barrier to the north; the forts, and the different settlements contiguous to them, to the west; Cumberland to the south; and upon our back, or east, you will observe the distance through the wilderness, which separates us from the back counties of Virginia, is rapidly contracting by the approximation of our settlements with those of Virginia and North-Carolina, and which will very soon cut off the communication between the northern and southern tribes of Indians.

There were two expeditions from Kentucky performed against the Indians in 1791, under the command of generals Scott and Wilkinson, that I have not hitherto noticed, and which had for their object the chastisement of a predatory, troublesome, and warlike tribe, who lived in several detached towns upon the Wabash and its waters.

The particulars of those expeditions I do not think have been generally known in Europe, and as they were under-
taken

taken when I was absent from the country, I shall subjoin an extract from a letter I received from a friend, who formed one of the party ; and which, I flatter myself, will be found to contain a considerable share of information, both as to the manner and address of the Kentuckians in indian warfare, and a more minute account of the country lying between the Ohio and the Wabash.

“ General Scott, at the head of 800 Kentucky volunteers, marched from opposite the mouth of the Kentucky river, about the beginning of June ; the course he steered was about north 20° west, and in about 15 days he struck and surprisèd the lower Weausteneau towns on the Wabash river, and the prairie adjoining ; but unfortunately the river at that time was not fordable, or the Kickapoo town on the north-west side, with the Indians who escaped in their canoes from the Weau town on the south, must have fallen completely into our hands ; however, about 20 warriors were killed in the Weau villages, and in the river crossing the Wabash, and 47 of their squaws and children taken prisoners.

“ Immediately after the engagement, a council of war was called, when it was determined, that Wilkinson should cross the Wabash under cover of the night, with a detachment of 400 men, and endeavour to surprisè the town of Kattippacanunck, which was situated upon the north side of that river, at the mouth of Tippacanoe creek, and about 20 miles above the lower Weau towns. This expedition was conducted with so much caution and celerity, that Wilkinson arrived at the margin of the prairie, within a mile, and to the west of the town, about an hour before the break of day ; while a detachment was taking a circuit through the prairie to co-operate with the main body on a given signal, day appeared, and the volunteers rushed into the town with an impetuosity not to be resisted. The detachment in advance reached the Tippacanoe creek the very moment the
last

last of the Indians were crossing, when a very brisk fire took place between the detachment and the Indians on the opposite side, in which several of their warriors were killed, and two of our men wounded.

“This town, which contained about 120 houses, 80 of which were shingle-roofed, was immediately burnt and levelled with the ground; the best houses belonged to french traders, whose gardens and improvements round the town were truly delightful, and every thing considered, not a little wonderful; there was a tavern, with cellars, bar, public and private rooms; and the whole marked a considerable share of order, and no small degree of civilization.

“Wilkinson returned with his detachment, after destroying the town, and joined the main army about seven in the evening; and the day following our little army were put in motion with their prisoners; and steering about south, in 12 days reached the rapids of the Ohio, with the loss only of two men, who unfortunately were drowned in crossing Main White river.

“The success of this expedition encouraged government to set another on foot, under the command of general Wilkinson; which was destined to operate against the same tribes of Indians; whose main town, near the mouth of Ell river, on the Wabash, had not been attacked in the first excursion; and accordingly, on the first of August following, the general, at the head of 500 mounted volunteers, marched from fort Washington, north 16° west, steering, as it were, for the Maumic villages on the Picaway fork of the Maumic (or Miami of the lake) and St. Mary's river.—This movement was intended as a feint, and the Indians, who afterwards fell upon our trail, we completely deceived; nor did we change our course, until by the capture of a Delaware Indian, we ascertained that we were within 30 miles of the principal of the Maumic villages, and having marched down our northing, at the very time we received
the

the information, shifted our course to due west ; and at the distance of 180 miles from fort Washington we struck the Wabash within two miles and a half of Longuille, or, as the Indians call it, Kenapacomaqua.—It was about 4 P. M. when we reached that river, and crossing it immediately, we marched in four columns across the neck of land formed by the junction of the Wabash and Ell rivers ; passing several indian war posts that had been fresh painted, we arrived completely concealed on the south bank of Ell river, and directly opposite the town of Kenapacomaqua.

“ The surprise of this town was so very complete, that before we received orders to cross the river and rush upon the town, we observed several children playing on the tops of the houses, and could distinguish the hilarity and merriment that seemed to crown the festivity of the villagers, for it was in the season of the green corn dance.

“ The want of daylight, and a morass, that nearly encircled the town, prevented us from suddenly attacking, which enabled several of the Indians to escape ; and in some measure obscured the brilliancy of the enterprise, by limiting the number of warriors killed to 11, and capturing 40 squaws and their children, after burning all the houses, and destroying about 200 acres of corn ; which was then in the milk, and in that stage when the Indians prepare it for tossomanony. This success was achieved with the loss of two men, who were killed.

“ About four o'clock in the afternoon we mounted our prisoners, and took a west and by north course toward the little Kickapoo town, which the general hoped to surprise on his way to the great Kickapoo town, in the pararie, on the waters of the Illinois river ; but the difficulties we encountered in this march, through these almost boundless pararies, were such, that upon our arrival at little Kickapoo town, we found one half the horses in the army non-effective, and unlikely to reach the Ohio, by the nearest course

we could take ; which consideration induced the general to relinquish the enterprise against the great Kickapoo town ; and accordingly, after destroying about 200 acres of corn at Kathtippacanunck, Kickapoo, and the lower Weaucsteneau towns, we gained general Scott's return track, and on the 21st of August, after a circuitous march of 486 miles, arrived with our prisoners at Louisville.

“ In the course of this march, I had an opportunity of observing the general face of the country through which we passed.—Between fort Washington, at the crossing of the great Miami, where at present there is a considerable settlement under the protection of fort Hamilton, a fine body of land is found, but which is very indifferently watered. The situation of fort Hamilton is well chosen, as advantageous for defence, as pleasing to the eye ; it stands on a narrow neck of land, commanding the Miami on the N. W. and a pararie and sheet of water on the N. E. about a mile wide, and two miles and an half long ; from this pararie an abundant supply of forage may be got for the use of the army by repeated mowings of a very fine natural grass, from the month of June till the end of September. After passing the Miami river hills, on the west side, the country in places is broken, though, generally speaking, from thence to the limits of our march, toward the Maumic villages the face of it is agreeably varied with hills and dales ; well watered, and the timber mostly such as indicates a strong and durable soil. Between the Maumic trace and our west line of march toward Kenapacomaqua, there are a number of beech swamps, which will require draining before they will admit of settlements being formed—there are however delightfully pleasant and fertile situations on the Calemuc and Salamine rivers, which are only inferior to the woody plains of Kentucky in extent and climate. The pararie, in which was situated Kenapacomaqua, on the north bank of Ell river, is chiefly
a morass,

a morafs, and produces little elfe, other than hazel, fallow, a fpecies of dwarf poplar, and a very coarfe, but luxuriant grafs; the latter of which covers moftly the whole furface of the earth.—The fame kind of pararie extends, with little alteration, until you approach Kathtippacanunck, when the whole country gradually affumes a more pleafing and valuable appearance.

“ On our line of march from Kenapacomaqua to Kathtippacanunck (the diftance of which, from the traverses we were obliged to make to avoid impaffable moraffes, was 60 miles), in feveral places, the profpect was only bounded by the natural horizon, the uniformity of which was here and there broken by the diftant looming of a grove on the edge of the plane, which ftrongly refembled the projecting points of a coaft clothed with wood, and feen by mariners at a diftance from the fhore.

“ The fituation of the late town of Kathtippacanunck was well chofen for beauty and convenience; it flood in the bofom of a delightful furrounding country on a very rich bottom, extending eaft and weft, on the Wabafh river, about two miles; the bottom about half a mile wide, bounded on the eaft by Tippacanoë, and weftward by a beautiful rifing ground, fkimmed and clothed with thin woods—from the upper bank you command a view of the Wabafh river, which is terminated by a towering growth of wood to the fouth, and Tippacanoë creek to the eaft—the country in the rear from the upper bank fpreads into a level pararie of firm, ftrong land, of an excellent quality, interfperfed with copfes, naked groves of trees, and high mounds of earth of a regular and conical form, all of which confpire to relieve the eye, and cheer the fcene with the moft agreeable variety. The top of this bank, which is level with the plane of the pararie, and about 200 feet perpendicular from the bottom in which the town flood, forms an angle about 60°,
and

and about midway there issue from its side two living fountains, which have hitherto constantly supplied the town with water

“ The country between Kathippacanunck and the little Kickapoo town is beautiful beyond description. The numerous breaks, and intermixture of woodland and plains, give the whole an air of the most perfect taste; for nature here, in a propitious hour, and in a benignant mood, seems to have designed to prove, in beautifying, how far she excels our utmost efforts, and the most laboured improvements of art.

“ Between the little Kickapoo town and the lower Weauceneau towns, the land is of the first-rate quality—at the edge of the woodlands, and before you descend into the river bottoms, one of the most charming prospects the imagination can form, displays itself in all the variegated pride of the most captivating beauty. From this place, through the glades and vistas of the groves in the bottom, you catch a view of the meandering river, which silently steals through this smiling country, as if pregnant with its charms, and as if it was hurrying to communicate its joys to less happy streams. The bottoms of the Wabash on the opposite side are confined by a bluff bank nearly 200 feet, which breaks the scenery of the valley, and runs parallel with the river—from the top of this bank a plain is seen stretching out to the east and west as far as the eye can reach, without tree or bush, covered with a most luxuriant herbage, and in every respect assuming the appearance of an highly improved and cultivated meadow. The plain is terminated on the south by a distant prospect of the rising woodlands, which, with a misty bloom, and in all that azure beauty, so peculiar to these fair regions, here appears in all its æthereal lustre; and seems finally lost in combining with the clouds.

“ The prairies extend about 25 miles south of the Wabash;

from thence the country gradually breaks into hills and valleys; and until we reached the waters of White river, we found the soil tolerably good. There it is very much broken, the bottoms of the rivers are narrow, and subject to frequent and violent inundations.

“There is some tolerable good land on Rocky river; but as we approached the waters of the Blue river, the country again opens into plains, in which are interspersed clumps of scrubby oak, dwarf laurel, plum and hazel, that extend to Indian creek, when the country again improves, and though it is rather broken, it continued to improve until we reached the rapids of the Ohio.”

What I formerly advanced respecting a new state being formed in ten years from that date, west of the Ohio, merely as conjecture, does not appear to me at present the least problematical.

The circumstances attending the rise of the state of Kentucky were infinitely more perilous and calamitous than extending our settlements farther westward is likely to be:—and when it is remembered that state rose from an uninhabited wild, detached from every other country from which it would obtain supplies a distance of several hundred miles, and exposed on every quarter to the merciless fury of the savages, in a shorter period of time, and that our present infant settlements are protected by a strong and active military force, directed by fatal and improved experience of our former misfortunes, with a cultivated country at their back, which pours forth an abundance of resources to support them against the effects of contingencies and disasters, I think we may contemplate, with every degree of human certainty, the success of such a speculation.

The settlement at the mouth of the great Kanhaway, which did not commence until 1785, and which was an æra when our western affairs had a most gloomy aspect, constitutes already, with the settlements above the river Elk, a
distinct

distinct county, and in which the laws of the state to which it belongs are administered with great precision and justice.

Galleapolis and the settlements upon the Miami increase daily in strength, while fresh encouragement and security are given to emigrants by the vigilance of the army in their neighbourhood; who so completely overawe the Indians, that little harm in future can be dreaded from their incursions, and they well know their partial successes hitherto were owing to the folly of our war minister, and the inexperience of the officers of his appointment—but the system has been completely changed—and the success of Wilkinson and Scott's expedition is amply sufficient to justify the measure.

APPENDIX.

No. I.

An historical narrative and topographical description of Louisiana, and West-Florida, comprehending the river Mississippi, with its principal branches and settlements, and the rivers Pearl, Pascagoula, Mobile, Perdido, Escambia, Chacta-Hatcha, &c. the climate, soil, and produce, whether animal, vegetable, or mineral; with directions for sailing into all the bays, lakes, harbours and rivers on the north side of the gulf of Mexico, and for navigating between the islands situated along that coast, and ascending the Mississippi river. By Thomas Hutchins, geographer to the United States.

THE PREFACE.

SEVERAL years residence in the province of West-Florida, during which I entered into a minute examination of its coasts, harbours, lakes, and rivers, having made me perfectly acquainted with their situation, bearings, soundings, and every particular requisite to be known by navigators, for their benefit I am induced to make my observations public. The expence and trouble at which this knowledge has been acquired, are far from inconsiderable; however, if the accurate surveys and descriptions I am thereby enabled to give, prove instructive and beneficial to my country, I shall esteem myself amply repaid.

It may be proper to observe that I have had the assistance of the remarks and surveys, so far as relates to the mouths of the Mississippi, and the coast and soundings of West-Florida, of the late ingenious Mr. George Gauld, a gentleman who was employed by the lords of the british admiralty for the express purpose of making an accurate chart of the abovementioned places.

I have also had recourse, in describing some parts of the Mississippi, to the publication of captain Pitman, who resided many years on that river, and was well acquainted with the country through which it flows.

A particular detail of the advantages that may in time accrue to the possessors of West-Florida, with a complete description of the country and its productions, would not make an improper addition to the following work; but as the more immediate purpose of it is

to point out the dangers of its coasts to the approaching mariner, I shall confine the cursory remarks I make on those heads, to such particulars only as are most deserving of notice.

Before I enter on the prosecution of my design, I would just observe, that I shall be more solicitous to make the result of my investigations useful than amusing; I shall endeavour rather to be clear and intelligible, than study to deliver myself in florid language.

A DESCRIPTION of the river Mississippi and the country through which it flows, called Louisiana, would have been the first objects submitted to the reader's attention; were it not humbly presumed that a short account of the discovery of the river Mississippi, and a view of the different states to which its banks have been subjected, are judged necessary, before their description is attempted.

The merit of first discovering the river Mississippi (or, in the language of the natives, Meschafipi, for the general appellation of the former is a corruption of the latter), according to Lewis Hennepin's account published in London 1698, is due to the sieur la Salle, who discovered that river in 1682. It seems that father Hennepin forgot that this river was previously discovered by Ferdinand de Soto in 1541, also by colonel Wood in 1654, and by captain Bolt in 1670. Monsieur de la Salle was the first who traversed that river. In the spring of the same year 1682, he passed down to the mouths of the Mississippi; he afterwards remounted that river, and returned to Canada in the month of October following, from whence he took his passage to France, where he gave so flattering an account of the advantages that would certainly accrue from the settling a colony in those parts, that a company was formed for carrying those designs into execution, with a squadron consisting of four vessels; having on board a sufficient number of persons, and all kinds of goods and provisions, necessary for the service of the new colony, which he proposed to fix at or near the mouth of the Mississippi. But having sailed beyond the mouth of the river, he attempted to fix a colony at the bay of St. Bernard, where he arrived the 18th of February 1684, about 100 leagues westward of the Mississippi. There his men underwent such hardships, that most of them perished miserably. The leader, animated with an ardent desire of extending his discoveries, made various excursions with such of them who were able to travel; but on the 19th of

March 1687, two of his men villainously murdered him, when exploring the interior parts of the country, in search of mines, and of the tract which led to those of St. Barbe in new Mexico.

About seven years after, monf. Ibberville, a respectable officer in the French navy, undertook to execute whatever la Salle had promised ; and his reputation being established already, the court entrusted him with the conduct of the project. He carried his people very safely to the mouth of the great river, and there laid the foundation of the first colony the French ever had on the Mississippi. He took care to provide them with every thing necessary for their subsistence, and obliged them to erect a fort, for their defence against the Indians. This being done, he returned to France in order to obtain supplies.

The success of his voyage made him extremely welcome at court, and he was soon in a condition to put to sea again. His second voyage was as fortunate as the first ; but very unluckily for his colony, he died whilst he was preparing for the third. The design might have been abandoned, had not Crozat, a private man of an immense fortune, undertaken its support at his own expence. In 1712, the king gave him Louisiana. Thus Lewis imitated the pope, who divided between the kings of Spain and Portugal the territories of America, where the holy see had not one inch of ground.

In this grant the bounds are fixed by the Illinois river and the lake of that name on the north ; by Carolina on the east, the gulf of Mexico on the south, and new Mexico on the west. As to Canada, or new France, the french court would scarcely admit it had any other northern boundary than the pole. The avidity of Great Britain was equal, but France having been unfortunate in the war of 1710, the northern boundary of Canada was fixed by the treaty of Utrecht in 1713. It assigns new Britain and Hudson's bay, on the north of Canada, to Great Britain ; and commissioners afterwards on both sides ascertained the limits by an imaginary line, running from a cape or promontory in new Britain to the Atlantic ocean, in 58 degrees 30 minutes north latitude, thence south-west to the lake Misgosink or Mistassim ; from thence farther south-west directly to the latitude of 49 degrees : all the lands to the north of the imaginary line, being assigned to Great Britain ; and all southward of that line, as far as the river of St. Lawrence,

to the French. These were at that time the true limits of Louisiana and Canada, Crozat's grant not subsisting long after the death of Lewis XIV.

In order to have some plausible pretence for setting on foot a project for changing the face of public affairs in France, this settlement was thought the most convenient; and therefore all imaginable pains were taken to represent it as a paradise, and a place from whence inexhaustible riches might be derived, provided due encouragement could be obtained from government. For this purpose it was thought requisite that a new company should be erected, to make way for which Mr. Crozat was to resign his grant; which he did accordingly.

This occasioned the noise that was made about the Mississippi, not in France only, but throughout all Europe, which was filled with romantic stories of the vast fruitfulness of the banks of this great river, and the incredible wealth that was likely to flow from thence; and those accounts, though true in part, in the end proved ruinous to many.

Before the treaty of peace in 1762, Louisiana, or the southern part of new France, extended in the french maps from the gulf of Mexico, in about 29 degrees, to near 45 degrees of north latitude, on the west of the Mississippi, and to near 39 degrees on its eastern bank. Its boundaries were Canada on the north; New York, Pennsylvania, Maryland, Virginia, North and South-Carolina, Georgia, and the north-west part of the easternmost peninsula of Florida, on the east; the gulf of Mexico on the south; and lastly, the kingdom of new Mexico on the west.

The european states having observed that kings and republics claimed the sovereignty of every tract which had been seen, and were pretended to have been discovered by navigators sailing under their flags, their geographers were not permitted to publish maps which might have contradicted such wild claims. This was the absurdity of former days. But political circumstances often emboldened pretenders to urge their chimerical rights; and their no less chimerical opponents then yielded what they had no better right to cede. But the absurd recognition of such absurd pretensions is but a temporary compliance. It ever did and ever will sow the seeds of implacable animosities and contentions, until preoccupancy and cultivation, the true tests of lawful possession, shall have remedied the former invalidity of the claim.

Both sides of the Mississippi continued under the dominion of his most christian majesty till the peace of 1762, when the eastern side was ceded to the king of Great Britain by the 7th article of the definitive treaty, in the following words: "In order to reestablish peace on solid and durable foundations, and to remove for ever all subjects of dispute with regard to the limits of the british and french territories on the continent of America, it is agreed, that for the future, the confines between the dominions of his britannic majesty, in that part of the world, shall be fixed irrevocably by a line drawn along the middle of the river Mississippi, from its source to the river Ibberville, and from thence, by a line drawn along the middle of this river, and the lakes Maurepas and Ponchartrain, to the sea; and for this purpose the most christian king cedes in full right, and guaranties to his britannic majesty, the river and port of the Mobile, and every thing which he possesses, or ought to possess, on the left side of the river Mississippi, except the town of new Orleans, and the island in which it is situated, which shall remain to France; provided that the navigation of the river Mississippi shall be equally free, as well to the subjects of Great Britain, as to those of France, in its whole length, from its source to the sea, and expressly that part which is between the said island of new Orleans, and the right bank of that river, as well as the passage both in and out of its mouth: it is further stipulated that the vessels belonging to the subjects of either nation, shall not be stopped, visited, or subjected to the payment of any duty whatsoever. The stipulations inserted in the 4th article, in favour of the inhabitants of Canada, shall also take place with regard to the inhabitants of the countries ceded by this article."

In the year 1762, and the day before the preliminary articles to the peace were signed, his christian majesty ceded to Spain all his territories on the western side of the Mississippi, together with the town of new Orleans, and the peninsula in which it is situated on the eastern bank. But the inhabitants of Louisiana were ignorant of this cession before the year 1764, when Mr. d'Abbadie, then governor, published the king's letter to him on that subject, mentioning the date of the cession, and containing a declaration that he had stipulated with Spain that the french laws and usages should not be altered.

The definitive treaty, between Great-Britain and the
United

United States of America, signed at Paris the 3d day of September 1783, runs as follows :

“ Article 1. His britannic majesty acknowledges the said United States, viz. New-Hampshire, Massachusetts-Bay, Rhode-Island and Providence plantations, Connecticut, New-York, New-Jersey, Pennsylvania, Delaware, Maryland, Virginia, North-Carolina, South-Carolina, and Georgia, to be free, sovereign, and independent states ; that he treats with them as such, and for himself, his heirs and successors, relinquishes all claims to the government, property, and territorial rights of the same, and every part thereof.

“ Article 2. And that all disputes which might arise in future, on the subject of the boundaries of the said United States, may be prevented, it is hereby agreed and declared, that the following are and shall be their boundaries, viz. From the north-west angle of Nova Scotia, viz. that angle which is formed by a line drawn due north from the source of St. Croix river to the highlands, along the said highlands, which divide those rivers that empty themselves into the river St. Laurence from those which fall into the Atlantic ocean, to the north-westernmost head of Connecticut river ; thence down along the middle of that river to the 45th degree of north latitude ; from thence by a line due west in said latitude, until it strikes the river Irriquois or Cataraqui ; thence along the middle of the said river into lake Ontario ; through the middle of the said lake until it strikes the communication by water between that lake and lake Erie ; thence along the middle of said communication into lake Erie, through the middle of said lake, until it arrives at the water communication between that lake and lake Huron, thence through the middle of said lake to the water communication between that lake and lake Superior ; thence through lake Superior, northward of the isles Royal and Phelipeaux, to the Long lake ; thence through the middle of said Long lake and the water communication between it and the lake of the Woods, to the said lake of the Woods, thence through the said lake to the most north-western point thereof, and from thence on a due west course to the river Mississippi ; thence by a line to be drawn along the middle of the said river Mississippi ; thence by a line to be drawn along the middle of the said river Mississippi until it shall intersect the northernmost part of the 31st degree of north latitude. South, by a line to be drawn due east from the determination of the line last mentioned in the latitude
of

of 31 degrees north of the equator, to the middle of the river Apalachicola or Catanaouche: thence along the middle thereof to its junction with the Flint river: thence straight to the head of St. Mary's river: and thence down along the middle of St. Mary's river to the Atlantic ocean: east, by a line to be drawn along the middle of the river St. Croix, from its mouth in the bay of Fundy to its source, and from its source directly north to the aforesaid highlands which divide the rivers that fall into the Atlantic ocean from those which fall into the river St. Laurence, comprehending all islands within 20 leagues of any part of the shores of the United States, and lying between lines to be drawn due east from the points where the aforesaid boundaries between Nova-Scotia on the one part, and East-Florida on the other, shall respectively touch the bay of Fundy and the Atlantic ocean, excepting such islands as now are or heretofore have been within the limits of the said province of Nova-Scotia.

“Article 8. The navigation of the river Mississippi, from its source to the ocean, shall for ever remain free and open to the subjects of Great Britain, and the citizens of the United States.”

Having mentioned all the boundaries that were at different periods assigned to Louisiana, the conduct of the Spaniards, on possessing themselves of that colony, is to be considered next in course.

Don Antonio Ulloa arrived at new Orleans about the middle of the year 1766, but deferred to take possession of the government of the colony in his catholic majesty's name, until he had received special orders to that effect.

In the beginning of the year 1767, 2000 spanish soldiers were sent from the Havanna, but he did not then take possession of the country. He sent however about 60 of these troops to erect two forts, one opposite to the british fort, named Bute, on the mouth of the Iberville, and the other on the western side of the Mississippi, a little below the Natchez, where a detachment of british troops had taken post; another party was sent in the autumn of 1767 to build a fort at the mouth of the river Missouri; but the commandant had positive orders not to interfere with the civil government of the Illinois country, where mons. de Saint Ange the french commandant continued to command with about 20 french soldiers. Don Antonio Ulloa, without taking possession in his catholic majesty's name, and
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consequently without authority from France or Spain, established monopolies, restricted commerce, and committed several abuses, which rendered him odious to the colonists. At last, on the 29th of October 1768, the council issued a decree to oblige him and the principal Spanish officers to leave the province in November following, notwithstanding M. Aubry's remonstrances, and the protest he made against the edict of the council.

Don Ulloa's conduct had rendered him the more obnoxious; as, from the letter written by the king of France, acquainting Mr. d'Abbadie with the cession he had made to Spain, it appeared that the two kings had agreed, that Louisiana should retain her laws, privileges, and customs. The French, nay the Spaniards themselves, all blamed Mr. Aubry's acquiescence; for every one was sensible that the king of France never would have directed him to treat don Ulloa with an obsequiousness which degraded royal authority and the French nation; and that his instructions could, at most, authorise Mr. Aubry to follow that officer's advice, until the government of Louisiana should be delivered to Spain. Whatever entreaties had been used to persuade don Ulloa to take possession, and by that measure render the exercise of his authority lawful, he evaded, but did not cease to oppress; so that he lost the esteem which he had acquired by the publication of his voyages; and the colonists having been informed of the severity with which he had governed the city of Quito in Peru, he was only considered as a tyrant, whose sole merit was to be learned in the mathematics.

The superior council, guided by the intendant and the attorney-general, having threatened him with a prosecution, he declared that, at the Balize, Mr. Aubry had privately delivered to him the command of the colony. As none could conceive that a clandestine possession ought to authorise the public exercise of sovereign power, Ulloa's declaration was judged an artifice of the grossest texture; and Mr. Aubry, who affirmed the declaration to be true, was not believed. It made him fall into contempt, and emboldened the leaders of the party which opposed him. These increased the doubts of the public relative to the cession, and served to convince every one, that the Spaniards did not seriously intend taking possession:—"The cession," said they, "was made in 1762, the day before the preliminary articles of peace were signed: near two years elapsed before
it

it was first known by the king's letter to Mr. d'Abbadie : more than another year passed before the arrival of don Ulloa, who has been above two years in the country, and did not yet take possession." If the reflections occasioned by these circumstances put together ; if the conjectures scattered in the english newspapers, or by the English who came into the country, led the inhabitants to think that the cession was fictitious, and a state manœuvre, their fears were at the same time quieted, since they did not apprehend those evils which the change of sovereignty makes almost unavoidable, even when the new government is milder and more favourable. On the other hand, their indignation was the greater against don Ulloa, who abused the reasons of state that were supposed to be the cause of his having been sent to Louisiana ; who availed himself of Mr. Aubry's imbecility, to establish a species of despotism, the more intolerant, as it shocked the manners of the french nation.

To put a stop to this tyranny, it would have been sufficient to commence, with circumspection, a juridical prosecution against him, and inform the ministry of the proceedings. But the council began by issuing a decree for expelling him and the Spaniards. To reduce the people to the necessity of supporting that violence, the leaders excited them to offend the king of Spain, from whom they had received no injury, and who doubtless would have punished his officer, had the council proceeded with respect, and used lawful means to transmit to him their grievances. But indignities were offered to the spanish flag ; a step which rendered the insult personal to the king of Spain, and made him overlook his envoy's misdemeanors. This is not all : the council and the inhabitants sent deputies to France, charged them to represent the grievances of the colony to their sovereign, and supplicate him to retain the province. Their prayers were accompanied with protestations of devotion and loyalty. But before the departure of these deputies, the leaders of the faction seduced some members of the council, secretly sent another deputation to Pensacola ; and, without the people's knowledge, offered Louisiana to Great Britain !

The dread of being called to account, with which the crafty don Ulloa had often threatened the intendant and the attorney-general, that he might obstruct their prosecutions, and silence them, relatively to his own conduct, was doubtless

doubtless the sole cause of that desperate step, the authors of which might have foreseen the unsuccessful issue, had they not been bereft of their senses. It is true that there has been no public inquiry on that head; and therefore, the public has no juridical proof of this fact; but the characteristics of such inquiry as was made, its terrifying apparatus, its result, and the concerted silence of those by whom it was directed, sufficiently confirm not only what is openly said among the English, but what the inhabitants of Louisiana whisper to each other, when complaining of their miseries with which the perfidiousness of their leaders had loaded them, though not accomplices of their crimes. It is also said, that the governor of West-Florida was unwilling to countenance the treason and revolt of the subjects of a prince then in peace with Great Britain: it is affirmed that he sent to Mr. Aubry the original offers he had received, and that don Ulloa, who had not yet sailed, carried them with him to Europe for his justification. Why then did not Mr. Aubry produce that paper to confound the conspirators? They would have been looked upon with execration by the people whom they had betrayed, and the disturbances would have immediately subsided. Can it be believed, that the governor of Florida insisted on secrecy, as it is intimated by some persons who would be glad to apologize for Mr. Aubry's conduct respecting this matter? Had the intestine divisions, which then rent the british colonies of North-America, induced the british governor to discover the conspiracy in order to prevent the fatal consequences of so dangerous an example, would not secrecy have deprived him of the only fruit he could expect from his policy?

Monsieur de Sacier, one of the council, with two other gentlemen of the colony, who were sent to France with the edict of the superior council, and to implore the protection of the king, as before mentioned, were imprisoned on their arrival, and have never been heard of since.

During six months, which elapsed before news could be received from Europe, the unhappy colonists vainly flattered themselves with hopes of being justified for the steps they had taken by the court of France. On the 23d of July 1769, news was brought to new Orleans of the arrival of general O'Riley at the Balize, with 18 transports, followed by 10 more from the Havanna, having 4,500 troops on board, and loaded with stores and ammunition. This
intelli-

intelligence threw the town into the greatest consternation and perplexity, as, but a few days before, letters had arrived from Europe signifying that the colony was restored to France.

In the general distraction that took place, the inhabitants of the town and the adjacent plantations determined to oppose the landing of the Spaniards, and sent couriers requiring the Germans and acadian neutrals to join them. On the 24th an express arrived from general O'Riley, which was read by monsieur Aubry to the people in church; by this they were informed that he was sent by his catholic majesty to take possession of the colony, but not to distress the inhabitants; and that when he should be in possession, he would publish the remaining part of the orders he had in charge from the king his master; and should any attempt be made to oppose his landing, he was resolved not to depart until he could put his majesty's commands in execution.

The people, dissatisfied with this ambiguous message, came to a resolution of sending three deputies to general O'Riley, viz. messieurs Grandmaison town-major, la Friniere attorney-general, and de Mazant formerly captain in the colony's troops, and a man of very considerable property: these gentlemen acquainted him, that the inhabitants had come to a resolution of abandoning the province, and demanded no other favour than that he would grant them two years to remove themselves and effects. The general received the deputies with great politeness, but did not enter into the merits of their embassy, farther than assuring them, that he would comply with every reasonable request of the colonists; that he had the interest of their country much at heart, and nothing on his part should be wanting to promote it; that all past transactions should be buried in oblivion, and all who had offended should be forgiven: to this he added every thing that he imagined could flatter the expectations of the people. On the first of August the deputies returned, and made public the kind reception the general had given them, and the fair promises he had made. The minds of the people were now greatly tranquillized, and those who had before determined suddenly to quit their plantations now resolved to remain until their crops were off the ground.

On the 16th of August 1769, general O'Riley with the frigate, transports and troops on board, arrived opposite to

new Orleans. On the 18th the troops disembarked, and the general took possession in form, of new Orleans and the province of Louisiana, in the name of his catholic majesty, as quietly as a french governor would have done in the happiest times; and on the 25th, ordered the attorney-general and twelve others amongst the principal inhabitants to be arrested.

Of these 13, no more than one was released: this was the printer, who produced the positive orders which the intendant had given him, for printing the decree issued against don Ulloa, and several other writings. A few days before the proceedings began, a young gentleman nearly related to the attorney-general, and one of the prisoners, feigned a design of forcibly rescuing himself from the soldiers who guarded him. He received several wounds, which gave him that death which he sought. The proceedings against the eleven others were conducted in a military manner by gen. O'Riley, and the members of the court were mostly spanish officers. The council of war pronounced their sentence on those proceedings. In vain did the attorney-general and the other prisoners demand to be tried by the french laws. These would not have proved favourable to their accusers. General O'Riley was so unjust as to refuse that reasonable request. The attorney-general and four others, who were shot with him, died with fortitude. Had they really deserved that fate, their condemnation is not the less criminal, in the eyes of those who are not stupid enough to reverence authority when trampling upon the laws. The sentence of the court-martial dishonours the authors and tools of that injustice; it dishonours no others.

The six other state prisoners were sent to fort Moro in the island of Cuba, whence they were released after one year's confinement. The estates of the eleven persons, who were condemned by the court-martial, were confiscated, according to the practice of most countries; a practice as impolitic as it is unjust. It reflects disgrace on princes, occasions the impunity of the greatest crimes, and often multiplies the number of criminals. Many might be virtuous enough not to screen a guilty kinsman from justice; but few have sufficient magnanimity to see with indifference the estate of that kinsman pass into the prince's coffers, or those of his ministers. How many has not this sole reason seduced to engage in conspiracies or rebellions, which they would otherwise have wished to destroy! In such cases it frequently

frequently happens that the prince, whom confiscations cause to behold as an enemy, is deservedly opposed for his rapaciousness or inattention to his own interest.

The French beheld, with horror, their countrymen given up to foreigners, privately tried and arbitrarily punished, for crimes of which they were accused in a country subject to France. The indignity offered to Spain was the ostensible cause of their condemnation; but whatever their crime might have been, France alone ought to have had cognizance of it. If the accused were guilty of nothing else; or if, for state reasons, it was thought proper to mention that offence only, the king of Spain would have caused his name to be for ever blessed in the colony, had he, a judge in his own cause, generously forgiven. The measures that have been adopted, have produced a very different effect. They are nearly the same as those of the portuguese government, which contrived father Malagrida's being burnt by the inquisition, on the pretence of his having boasted that he had sometimes conversed with the holy virgin; but whose real crime was an attempt against his sovereign's life, in order to make another family ascend the throne. Crimes like these, openly perpetrated by the administration against the laws, common sense, and public safety, can nowhere be palliated with the pretence of necessity. Whatever those who advise them may think on the subject, they betray their country and their sovereign himself. In free states, where the personal safety of the meanest individual is as interesting to the whole nation as that of the greatest, crimes of this kind are never seen. They can be committed in such countries only, where despotism is established; where a few favoured slaves reduce the rest secretly to wish for the annihilation of those whom they seemingly adore.

The same disordered brains which projected the illegal prosecutions carried on against the factious leaders of Louisiana, have doubtless fancied that they would deserve immortality for a masterly stroke of policy, when they procured the abolition of the laws, privileges, and superior council of Louisiana, under the pretence of a decree issued against don Ulloa. Have they really thought that people could be deceived by names which were to represent nothing? The shadow of a tribunal was established under the name of Cabildo government, that is civil government, but the governor and his assessor are in fact the only judges. Since the judgments given by them jointly have the same virtue as those

those of that Cabildo government, few are so unskilful as to apply to this tribunal. Nay, who would dare to do it, except in trifling matters? Was it likewise believed that, for the governor and his assessor's conveniency, the substituting of the spanish language to the french, in all the juridical proceedings of Louisiana, where the inhabitants understand the french language only; the impartial dispensation of justice, which is the true glory of the state, would thence be effectually promoted? Things will certainly go well, as long as governors and their assessors shall have all the qualifications that perfect judges ought to have, and whilst the parties can procure faithful interpreters: but it is as true that, wise as these regulations are boasted to be, they depopulate the colony.

General O'Riley confirmed all the decrees of the superior council, except that which had been issued against don Ulloa. This was solemnly approving the seditious nomination of the members of Mr. Foucault's and the attorney-general's making; it was therefore arrogantly annulling the protest which Mr. Aubry had entered in behalf of the king of France and the public, against that nomination, and all the decrees issued out of that tribunal during the anarchy; it was depriving those who had been oppressed from the hopes of obtaining redress in the colony. For, the council being abolished, how could any one take the benefit of the french laws (since trials by peers or juries are refused), or think despotic rulers would allow of applying to sovereign courts for obtaining new trials of the causes, which they themselves may have tried illegally, or against evidence? But, to flatter the Spaniards, gen. O'Riley had determined that they alone should be judges; and military men of that nation could not, with the least plausibility, pretend that they were acquainted with the french laws; he, therefore, had rather cut off than untie. Such is the disposition of tyrants of every rank and denomination: Alexander cutting the gordian knot is, perhaps, of all the fables that are confounded with history, that which more truly characterises despotism. Men who, led by avarice and ambition, obtain admittance to that order, disregarding the people, to whose preservation they seem to have professedly devoted themselves, but who are determined on making their fortunes, are never disturbed in the least about the means which can promote their grand design. Their eyes being fixed on all those who have a share in the dispensation of wealth and

honours, they see them only. Their mercenary yze prompts them to wish for their being entrusted with iniquitous and inhuman orders, which they alone are fit to execute. Strangers to nature, they are deaf to the voice of justice and the cries of humanity; and, unable to rise by noble and generous actions, they glory in displaying their zeal for the prince, by wholly loading themselves with that public execration which attends the execution of sanguinary orders. It is not from such abject souls that a prince, inebriated with power, can ever learn that there are moments, not numerous indeed, but yet frequent enough to comfort the oppressed and chastise the oppressor—moments, when, after having made himself odious to his subjects; after having weakened and degraded them, he may regret their attachment, the courage which despotism has endeavoured to enervate, and the patriotism which it has attempted to destroy.

After this general Galvez, governor of new Orleans, in the year 1779, possessed himself of the british posts at the Iberville and Baton Rouge. By capitulation, the post at the Natchez was evacuated, and the garrison permitted to join the troops at Pensacola. The Spaniards likewise reduced the forts of Mobile and Pensacola; the former in the year 1780, and the latter in 1781. The above conquests not only subjected the eastern side of the Mississippi, but the whole province of West-Florida, to the dominion of Spain.

Having briefly touched on the principal revolutions which have happened in Louisiana, I shall now proceed with a short account of the Mississippi.

The safety and commercial prosperity which may be secured to the United States by the definitive treaty of peace, will chiefly depend upon the share of the navigation of the Mississippi which shall be allowed to them. Is it not amazing, true as it is, that few amongst us know this to be the key to the northern part of the western continent? It is the only channel through which that extensive region, bathed by its waters, and enriched by the many streams it receives, communicates with the sea. And here let us further observe, that the Mississippi river may truly be considered as the great passage made by the hand of nature for a variety of valuable purposes, but principally to promote the happiness and benefit of mankind; amongst which, the conveyance of the produce of that immense and fertile country, lying westward of the United States, down its stream

stream to the gulf of Mexico, is not the least. To expect the free navigation of the Mississippi is absurd, whilst the Spaniards are in possession of new Orleans, which commands the entrance to the western country above mentioned; this is an idea calculated to impose only upon the weak. The Spaniards have forts on the Mississippi, and whenever they may think it consistent with their interest, they will make use of them to prevent our navigating on it. Treaties are not always to be depended on; the most solemn have been broken*: therefore we learn that no one should put much faith in the princes of any country; for he that trusts to any thing but the operation of their interest, is a poor politician; and he that complains of deceit, where there is an interest to deceive, will ever be considered as deficient in understanding.

The great length and uncommon depth of that river, and the excessive muddiness and salubrious quality of its waters, after its junction with the Missouri, are very singular†. The direction of the channel is so crooked, that from new Orleans to the mouth of the Ohio, a distance which does not exceed 460 miles in a straight line, is about 856 by water. It may be shortened at least 250 miles, by cutting across eight or ten necks of land, some of which are not 30 yards wide. Charlevoix relates, that in the year 1722, at Point Coupée or Cut Point, the river made a great turn, and some Canadians, by deepening the channel of a small brook, diverted the waters of the river into it. The impetuosity of the stream was so violent, and the soil of so rich and loose a quality, that, in a short time, the point was entirely cut through, and travellers saved 14 leagues of their voyage. The old bed has no water in it, the times of the

* Notwithstanding the free navigation of the Mississippi allowed by the treaty of 1762, general O'Riley, in the year 1769, sent a party of soldiers to cut the hawsers of a british vessel called the Sea Flower, that had made fast to the bank of the river above the town of new Orleans; the order was obeyed, and the vessel narrowly escaped being lost.

† In a half pint tumbler of this water has been found a sediment of two inches of slime. It is, notwithstanding, extremely wholesome and well tasted, and very cool in the hottest season of the year; the rowers who are then employed drink of it when in the strongest perspiration, and never receive any bad effects from it. The inhabitants of new Orleans use no other water than that of the river, which by keeping in jars becomes perfectly clear.

periodical overflowings only excepted. The new channel has been since founded with a line of 30 fathoms, without finding bottom.

In the spring floods the Mississippi is very high, and the current so strong that with difficulty it can be ascended; but that disadvantage is compensated by eddies or counter-currents, which always run in the bends close to the banks of the river with nearly equal velocity against the stream, and assist the ascending boats. The current at this season descends at the rate of about five miles an hour. In autumn, when the waters are low, it does not run faster than two miles, but it is rapid in such parts of the river which have clusters of islands, shoals and sand-banks. The circumference of many of these shoals being several miles, the voyage is longer, and in some parts more dangerous, than in the spring. The merchandise necessary for the commerce of the upper settlements on or near the Mississippi, is conveyed in the spring and autumn in batteaux rowed by 18 or 20 men, and carrying about 40 tons. From new Orleans to the Illinois, the voyage is commonly performed in eight or ten weeks. A prodigious number of islands, some of which are of great extent, intersperse that mighty river. Its depth increases as you ascend it. Its waters, after overflowing its banks below the river Iberville, never return within them again. These singularities distinguish it from every other known river in the world. Below new Orleans the land begins to be very low on both sides of the river across the country, and gradually declines as it approaches nearer to the sea. This point of land, which in the treaty of peace in 1762, is mistaken for an island, is to all appearance of no long date; for in digging ever so little below the surface, you find water and great quantities of trees. The many beaches and breakers, as well as inlets, which arose out of the channel within the last half century, at the several mouths of the river, are convincing proofs that this peninsula was wholly formed in the same manner. And it is certain that when la Salle sailed down the Mississippi to the sea, the opening of that river was very different from what it is at present.

The nearer you approach to the sea, this truth becomes more striking. The bars that cross most of these small channels, opened by the current, have been multiplied by means of the trees carried down with the streams; one of which stopped by its roots or branches, in a shallow part,

is sufficient to obstruct the passage of thousands more, and to fix them at the same place. Such collections of trees are daily seen between the Balize and the Missouri, which singly would supply the largest city in Europe with fuel for several years. No human force being sufficient for removing them, the mud carried down by the river serves to bind and cement them together. They are gradually covered, and every inundation not only extends their length and breadth, but adds another layer to their height. In less than ten years time, canes and shrubs grow on them, and form points and islands, which forcibly shift the bed of the river.

Nothing can be asserted, with certainty, respecting its length. Its source is not known, but supposed to be upwards of 3000 miles from the sea as the river runs. We only know that, from St. Anthony's falls, it glides with a pleasant clear stream, and becomes comparatively narrow before its junction with the Missouri, the muddy waters of which immediately discolour the lower part of the river to the sea. Its rapidity, breadth, and other peculiarities then begin to give it the majestic appearance of the Missouri, which affords a more extensive navigation, and is a longer, broader, and deeper river than the Mississippi. It has been ascended by french traders about 12 or 1300 miles, and from the depth of water, and breadth of the river at that distance, it appeared to be navigable many miles further.

From the Missouri river to nearly opposite the Ohio, the western bank of the Mississippi is (some few places excepted) higher than the eastern. From Mine au Fer to the Ibberville, the eastern bank is higher than the western, on which there is not a single discernible rising or eminence, the distance of 750 miles. From the Ibberville to the sea, there are no eminences on either side, though the eastern bank appears rather the higher of the two, as far as the English turn. Thence the banks gradually diminish in height to the mouths of the river, where they are not two or three feet higher than the common surface of the water.

The slime which the annual floods of the river Mississippi leave on the surface of the adjacent shores, may be compared with that of the Nile, which deposits a similar manure, and for many centuries past has insured the fertility of Egypt. When its banks shall have been cultivated as the excellency of its soil and temperature of the climate deserve, its population will equal that, or any other part of the

world. The trade, wealth, and power of America will at some future period depend and perhaps centre upon the Mississippi. This also resembles the Nile in the number of its mouths, all issuing into a sea that may be compared to the Mediterranean, which is bounded on the north and south by the two continents of Europe and Africa, as the Mexican bay is by north and south America. The smaller mouths of this river might be easily stopped up, by means of those floating trees with which the river during the floods is always covered. The whole force of the channel being united, the only opening then left would probably grow deep as well as the bar.

To judge of the produce to be expected from the soil of Louisiana, let us turn our eyes to Egypt, Arabia Felix, Persia, India, China, and Japan, all lying in correspondent latitudes. Of these China alone has a tolerable government; and yet it must be acknowledged they all are, or have been, famous for their riches and fertility. When our wandering imagination soars to regions of wealth and terrestrial bliss, it delights in resting on those countries we have just mentioned.

Louisiana is agreeably situated between the extremes of heat and cold. Its climate varies as it extends towards the north. The southern parts, lying within the reach of the refreshing breezes from the sea, are not scorched like those under the same latitudes in Africa; and its northern regions are colder than those of Europe under the same parallels, with a wholesome serene air, very similar to the south of France and Lisbon. New Orleans, situated in $30^{\circ} 2'$, which nearly answers to the northern coasts of Barbary and Egypt, enjoys the same temperature of climate with Marseilles. Not quite two degrees higher in the country of the Natchez, the climate is much more uniform and temperate than at New Orleans. And in the country of the Illinois, which lies about 37° , the summer season is nearly the same as at Paris in France.

An objection has often been made by misinformed men, otherwise of great abilities, who too credulously believed that the navigation of the Mississippi river, on account of its rapid current, was more difficult than it is in reality. It appears from the calculation made by several skilful and experienced travellers, that in the autumn, when the waters are low, the current descends at the rate of about one and a half or two miles in an hour; and that the waters are in this
state

state more than one half of the year. In the spring, when the freshes are up, or at their greatest height, the current runs at the rate of five or six miles. It is true that the navigation would be difficult at that season, to those who sail or row up against the stream; but there is no example of such folly. When the waters of this river are high, the commodities and produce of the interior country are gathered and prepared for exportation with the descending current: and when the waters are low, the produce of the interior country is growing to maturity. This is the time for the navigator's importation. Great advantages are likewise taken then from eddy currents. At present there are few builders skilful enough to construct vessels better calculated for that navigation, than those already mentioned. Time and experience will doubtless produce improvements, and render the navigation of this river nearly as cheap as any other. But that the Mississippi can answer every purpose of trade and commerce, is proved to a demonstration, by the rapid progress the french, german, and acadian inhabitants on that river, have made. They have attained a state of opulence never before so soon acquired in any new country. And this was effected under all the discouragements of an indolent and rapacious government. It may be further asserted, that no country in North America, or perhaps in the universe, exceeds the neighbourhood of the Mississippi in fertility of soil and temperature of climate. Both sides of this river are truly remarkable for the very great diversity and luxuriancy of their productions. They might probably be brought, from the favourableness of the climate, to produce two annual crops of indian corn as well as rice, and with little cultivation would furnish grain of every kind in the greatest abundance. But their value is not confined to the fertility and immensity of champaign lands; their timber is as fine as any in the world, and the quantities of live and other oak, ash, mulberry, walnut, cherry, cypress, and cedar, are astonishing. The neighbourhood of the Mississippi, besides, furnishes the richest fruits in great variety, particularly grapes, oranges, and lemons in the highest perfection. It produces silk, cotton, saffras, saffron, and rhubarb; is peculiarly adapted for hemp and flax, and in goodness of tobacco equals the Brázils; and indigo is at this present a staple commodity, which commonly yields the planter from three to four cuttings. In a word, whatever is rich or rare in the most desirable climates in Europe, seems natural

to such a degree on the Mississippi, that France, though she sent few or no emigrants into Louisiana but decayed soldiers, or persons in indigent circumstances (and these very poorly supplied with the implements of husbandry), soon began to dread a rival in her colony, particularly in the cultivation of vines, from which she prohibited the colonists under a very heavy penalty; yet soil and situation triumphed over all political restraints, and the adventurers, at the end of the war in 1762, were very little inferior to the most ancient settlements of America in all the modern refinements of luxury.

The Mississippi furnishes in great plenty several sorts of fish, particularly perch, pike, sturgeon, eel, and calts of a monstrous size. Craw-fish abound in this country; they are in every part of the earth, and when the inhabitants choose a dish of them, they send to their gardens, where they have a small pond dug for that purpose, and are sure of getting as many as they have occasion for. A dish of shrimps is as easily procured: by hanging a small canvass bag with a bit of meat in it to the bank of the river, and letting it drop a little below the surface of the water, in a few hours a sufficient quantity will have got into the bag. Shrimps are found in the Mississippi as far as the Natchez, 348 miles from the sea.

Having glanced at the many advantages that will result from the cultivation and improvement of the lands in the neighbourhood of the Mississippi, we now proceed with a description of the coasts and islands about the mouths of that river, with directions to mariners.

The coast here is very low and marshy, and it would be difficult to find the entrance of that river, were it not for the houses at the old and new Balize, and the flagstaff at the former, which appear some distance at sea. The white clayey colour of the river water remaining unmixed on the surface, is another indication that the Mississippi is not far distant; and though it may be alarming to strangers, as it was to myself when I first beheld it, as it has the appearance of a shoal, yet the soundings are much deeper off the Mississippi than any where else on the coast.

It is an observation said to be founded on experience, that where the water of the Mississippi incorporates with, and apparently loses itself in the bay of Mexico, the current divides, and generally sets north-easterly and south-westerly, but out of soundings the currents are in a great measure governed

verned by the winds; and if they are not attended to, vessels may be driven south-westward beyond the Balize into the bay of St. Bernard, which is reported to be full of shoals, and consequently a very dangerous navigation.

To come to an anchor off the Balize, vessels approaching the land ought to bring the old Balize to bear about W. by S. and the new Balize W. N. W; they will then be about two miles distant from, and opposite to the east pass, or mouth, in 13 or 14 fathom water: and though strong N. E. and S. E. winds always occasion great swells off the Balize, yet when anchored as above directed they may ride in safety; except a S. E. wind, which is the most dangerous, as it blows directly on shore, should come on so violent as to part them from their anchors, and prevent their carrying sail; in which case, if care has not been taken to obtain a good offing, they will drift either on the mud banks into the pass A la Loutre, which has only eight feet water, or into the bay Briton, where they will be in a critical situation, on account of the shoal water for which that bay is remarkable.

The best precaution against the consequences of a south-east wind will be to get under way before the strength of the gale comes on, and to steer about N. by W. half W. for the island called Grand Gosier, distant seven leagues: in sailing round the south-westernmost part of which, care should be taken to steer clear of a shoal that runs out from it W. S. W. about two miles, which being passed, vessels should luff up, until the S. W. end of the island bears nearly S. E. two miles; there is then good anchoring in three and an half fathoms, soft bottom.

There is another safe anchoring-place in two fathom water, just within the S. W. point of the Isle au Briton; from the S. W. end of which a shoal runs out nearly half a mile. This island is about a league to the westward of the Grand Gosier, and there is good anchoring between them in three and four fathoms.

If a south-east gale should happen at night, it would be impossible to see the way between the above islands. In that case, a N. N. E. course from the mouths of the Mississippi will clear the Chandelures, situated about three leagues to the northward of the Isle au Grand Gosier, which are better than nine leagues in length. As all the above islands are low, and have no trees growing on them, they cannot be seen at any distance. On that account it will be necessary,

fary, when sailing towards them, to keep a good look-out. There is drift wood on these islands, and fresh water may be got by digging. The water between the Chandelures and the peninsula of Orleans is full of shoals, and the navigation fit only for small craft.

The river Mississippi discharges itself into the gulf of Mexico by several mouths of different depths of water : in the year 1772, that called the south-east, in latitude $29^{\circ} 10'$ north, and longitude $89^{\circ} 10'$ west from London, afforded 12 feet ; the east mouth, which before the above period furnished 15 feet, had then no more than 10 and an half feet ; and the north-east only 9 and an half feet on the bar of it. The latter now affords 12 feet, and S. W. has 16 feet. The bars are subject to shift ; but immediately after entering the river, there is from three to seven, eight and ten fathoms, as far as the south-west pass, and from thence 12, 15, 20 and 30 fathoms is the general depth for 1142 computed miles to the Missouri.

The shoals about the Mississippi are formed from the trees, mud, leaves, and a variety of other matter continually brought down by the waters of the river, which being forced along by the current, until repelled by the tides, then subside, and occasion what are commonly called the bars ; their distance from the entrances of the river, which is generally about two miles, depends much on the winds being accidentally with or against the tides : when these bars accumulate sufficiently to resist the tides and the current of the river, they form numerous small islands, which by constantly increasing, join to each other, and at last reach the continent.

All the land bordering the mouths of the Mississippi has been made in this manner. It is more than probable that the whole of the country on both sides of the river, as far as the Iberville, a distance of 204 miles, has been produced in a succession of ages by the vast quantities of mud, trees, leaves, &c. brought down by the annual floods which overflow the banks of the Mississippi ; the large trunks or bodies of trees which have been frequently found in digging in the above distance, seem to confirm this opinion ; and it may reasonably be supposed, that the lakes on each side of this river are parts of the sea not yet filled up : thus the land is annually raised, and constantly gains on the sea. The old Balize, a small post erected by the French on a little island, was in the year 1734 at the mouth of the river ; it is now

two miles above it. In the year 1766, don Antonio d'Ulloa erected some barracks on a small island, the new Balize (to which he gave the name of St. Carlos), for the convenience of pilots, and other purposes, being near the south-east entrance of the river, and a more dry and higher situation than any thereabouts. There was not the least appearance of this island 30 years ago*.

The old and new Balize were formerly very inconsiderable posts, with three or four cannon in each, and garrisoned by a subaltern's command. Such are their situations, that they neither defend the Mississippi, nor the deepest channel into it, and appear to have been established only for the purposes

* Whatever doubts may arise respecting the above account, instances are not wanting to prove that some other parts of the earth have been formed in a similar manner, as will appear by the following facts.

Havre de Grace is situated in the Pays de Caux, about 18 leagues from Rouen, and as much from Dieppe, on the point of a large valley, at the mouth of the river Seine, in the latitude of 49 degrees 30 minutes north. It stands upon a plain spot of ground, full of morasses, and crossed by a great number of creeks, and ditches full of water, which contribute not a little to its security. This ground was originally gained out of the sea, and formed from the large quantities of sand, gravel, and mud, which the force of the tide and the river conveyed to that place in a long course of time and by insensible degrees. And as it was formed, so it seems to be daily increased by the same means: for we are assured by a late author†, that about 70 or 80 years ago, the sea, at high water, came very near that gate of the city which is next the harbour; whereas now the high-water mark is nearly half a mile distant from it. So that it appears, the sea has gradually given way, and, as it were, retired, to leave the earth at liberty to enlarge and extend itself. Nor ought we to be surprised at this; the ground on which the city of Tyre is built, though now united to the continent, being formerly part of an island. Venice would have had the same fate long ago, had it not been for the great pains the inhabitants have taken to prevent it. The sea formerly washed the walls of Ravenna, which is now a league distant from it. Nor are other instances of this kind wanting, even in the same kingdom of France: particularly Frejus and Narbonne, a few centuries ago, were on the shore of the Mediterranean; but now the one is a league, and the other almost two, distant from it. Description de la Haute Normandie, tom. i. p. 193.

† Piganiol de la Force, Nouvelle description de la France, tom. ix. page

of assisting vessels coming into the river, and forwarding intelligence or dispatches to new Orleans.

In ascending the Mississippi there are extensive natural meadows, with a prospect of the sea, on both sides, most part of the distance to the Detour aux Plaquemines, which is 32 miles: from thence to the settlements 20 miles further, the whole is a continued tract of low and marshy grounds, generally overflowed, and covered with thick wood, palmetto bushes, &c. which appear almost impenetrable to man or beast. From thence the banks of the river are well inhabited to the Detour des Anglois, where the circular direction of the river is so very considerable, that vessels cannot pass it with the same wind that conducted them to it; and must either wait for a favourable wind, or make fast to the bank, and haul close, there being sufficient depth of water for any vessel that can enter the river. The two forts and batteries at this place, one of each, on both sides of the river, are more than sufficient to stop the progress of any vessels whatever*. The distance from hence to new Orleans is 18 miles. The banks of the river are settled and well cultivated, and there is a good road for carriages all the way.

Nothing with certainty can be determined respecting the time a vessel may take in sailing from the Balize to new Orleans, a distance of 105 miles. With favourable winds, the voyage has been performed in three or four, but it generally takes seven or eight days, and sometimes two or three weeks. There is always shoal water near the low points of land covered with willows. In approaching them, a few casts of the lead will be necessary: and in several places there are trees fixed with one end in the bottom, and the other just below the surface of the river, and in the same direction with the current, which by continual friction of the water, are reduced to a point; and as there are instances of vessels sailing with force against them being run through their bottoms, and sinking immediately after, too much care cannot be taken to avoid them. Attention should also be paid to keep clear of the trees floating down the river during the floods†. The water is everywhere deep

* Doctor Cox of New-Jersey ascended the Mississippi to this place in the year 1698, took possession, and called the country Carolina.

† It is impossible to anchor without being exposed to the danger

deep enough (except at the Willow points) to admit vessels close to either shore, where, instead of letting go an anchor, which would probably be lost among the logs sunk in the bottom of the river, vessels may safely make fast to the trees on the bank; which are generally tall, and in such abundance, in some parts, that they prevent the winds from being of that service to vessels in ascending the Mississippi, that might be expected. It will be therefore necessary, for expedition sake, to rig as many topsails as possible, which commonly reach above the trees, and are of more use than all the other sails put together; however, care must be taken to stand by the halliards to prevent the wind, which frequently comes in very strong puffs, from carrying away the top-masts, sails, &c.

The town of new Orleans, the metropolis of Louisiana, was regularly laid out by the French in the year 1720, is situated on the east side of the river in $30^{\circ} 2'$ north latitude, 105 miles from the Balize, as already mentioned; all the streets are perfectly straight, but too narrow, and cross each other at right angles. There are betwixt 7 and 800 houses in this town, generally built with timber frames raised about eight feet from the ground, with large galleries round them, and the cellars under the floors level with the ground: any subterraneous buildings would be constantly full of water. Most of the houses have gardens. Exclusive of slaves, there are about 7000 inhabitants of both sexes. The fortification is only a line of stockades, with bastions of the same materials, on three sides, a banquet within, and a very trifling ditch without, and is only a defence against musquetry. The side next the river is open, and is secured from the inundations of the river by a raised bank, generally called the Levée, which extends from the English Turn, or the Detour des Anglois, to the upper settlements of the Germans, a distance of more than 50 miles, with a good road all the way. There

ger of the great trees, which frequently come down with the current, but more especially at the time of the floods, which if any of them should come athwart hawse, would most probably drive in the bows of the vessel; and there is a certainty of losing the anchors, as the bottom of the river is very soft mud, covered with sunk logs. This points out the impossibility for vessels to navigate upon the Mississippi, unless they are permitted to make fast to the shore; and no vessel can be said to enjoy the free navigation of the river, if deprived of this necessary privilege.

is reason to believe the period is not very distant when new Orleans may become a great and opulent city, if we consider the advantages of its situation, but a few leagues from the sea, on a noble river, in a most fertile country, under a most delightful and wholesome climate, within two weeks sail of Mexico by sea, and still nearer the french, spanish, and british islands in the West Indies, with a moral certainty of its becoming a general receptacle for the produce of that extensive and valuable country on the Mississippi, Ohio, and its other branches; all which are much more than sufficient to ensure the future wealth, power, and prosperity of this city.

The vessels which sail up the Mississippi haul close alongside the bank next to Orleans, to which they make fast, and take in or discharge their cargoes with the same ease as from a wharf.

From new Orleans there is a very easy communication with West-Florida, by means of the Bayouk of St. John, a little creek which is navigable for vessels drawing about four feet water six miles up from the lake Ponchartrain, where there is a landing-place, at which vessels load and unload: this is about two miles from the town. The entrance of the Bayouk of St. John is defended by a battery of five or six cannon. There are some plantations on the Bayouk, and on the road from thence to new Orleans.

Canes-Brulé, Chapitoula, and the german settlements, join each other, and are a continuation of well-cultivated plantations, of near 50 miles from new Orleans, on each side of the river. At the german settlements, on the west side of the river, is a church served by the capuchins. There was formerly a small stockaded fort in the centre of the settlements on the east side of the river: this post was originally erected as an asylum for the inhabitants who first settled there, and were much molested by the Chactaws and Chickasaws, who in alliance carried on a war against the settlers on the Mississippi. Their entry into this part of the colony was very easy, as they went up a small creek, Tigahoe, in canoes. The entrance of this creek, which is in the lake Ponchartrain, was defended by a small redoubt, since in ruins.

The produce of the plantations, commencing below the English Turn, and continuing to the upper settlements of the Germans, forms a very considerable part of the commerce of this country; the different articles are indigo,
cotton,

cotton, rice, beans, myrtle-wax, and lumber. The indigo is much esteemed for its beautiful colour and good quality; the colour is brighter than that which is fabricated at St. Domingo. The cotton formerly cultivated, though of a most perfect white, is of a very short staple, and is therefore not in great request. The different sorts of beans, rice, and myrtle candles, are articles in constant demand at St. Domingo.

In the year 1762, several of the richest planters began the cultivation of sugar, and erected mills to press the canes; the sugar produced was of a very fine quality, and some of the crops were very large: but no dependance can be had on this article, as some years the winters are too cold, and kill the canes in the ground.

In the autumn, the planters employ their slaves in cutting down and squaring timber, for sawing into boards and scantling. The carriage of this timber is very easy, for those who cut it at the back of their plantations make a ditch, which is supplied with water from the back swamps, and by that means conduct their timber to the river with very little labour: others send their slaves up to the cypress swamps, of which there are a great many between new Orleans and Point Coupée. There they make rafts of the timber they cut, and float down to new Orleans. Many of the planters have saw-mills, which are worked by the waters of the Mississippi, in the time of the floods, and then they are kept going night and day till the waters fall. The quantity of lumber sent from the Mississippi to the West India islands is prodigious, and it generally goes to a good market.

About 60 miles from new Orleans are the villages of the Humas and Alibamas. The former were once a considerable nation of Indians, but are reduced now to about 25 warriors; the latter consists of about 30, being part of a nation which lived near fort Toulouse, on the river Alabama, and followed the French when they abandoned that post in the year 1762. Three miles further up is the Fourche de Chetimachas, near which is the village of a tribe of Indians of the same name; they reckon about 27 warriors.

It is truly surprising, that the nations who have successively possessed Louisiana, never endeavoured to obtain an exact knowledge of the sea-coast westward of the mouths of the Mississippi. The many difficulties and dangers to
which

which vessels are exposed in making, and getting over the shallow and shifting bars of that river, as well as in a long and tedious navigation upwards of 30 leagues to new Orleans, would render a harbour to the westward of the Balize, and a water communication with the upper parts of the Mississippi, of vast importance. The nature of the narrow slip of land extending upwards of 60 leagues between that river and the sea, in a westerly course, indicates very strongly the probability of a better and more easy communication from that quarter, than that by the river Iberville through the lakes Ponchartrain and Maurepas. This opinion is fully confirmed by the information received from Natchiabe, an intelligent chief of the Humas tribe, who inhabit the banks of a creek known by the name of the Chetimachas fork, already mentioned, and which I am now to describe. The Chetimachas forms one of the outlets of the Mississippi about 30 leagues above new Orleans, and after running in a southerly direction about eight leagues from the river, divides into two branches, one of which runs south-westerly and the other south-easterly, to the distance of seven leagues, when they both empty their waters into the mexican gulf.

On the Chetimachas, six leagues from the Mississippi, is a small settlement of a tribe of Indians of the same name. To this settlement the Chetimachas is uniformly about 100 yards in width; the depth from two to four fathoms, when the water is lowest; the course southerly, without any material winding or shoal, except at its rise from the Mississippi, where there are large collections of drifted logs, which have probably occasioned the sand-bank formed at the same place. This bank however extends no farther than 60 yards, and through which a passage might easily be cleared for batteaux. The upper part of this outlet is also obstructed, in several places, by heaps of drifted logs similar to those just mentioned; but as the water, at all times, runs deep under them, they could easily be cleared off. It would be as easy to prevent any further collection of logs, or sands, at the entrance of this creek, by erecting a spar, with piles or caissons, a little above it, in an oblique direction with the current of the Mississippi. That difficulty once overcome, there is no other that can impede navigation from the river to the above mentioned settlement of the Chetimachas village; nor, as these Indians inform, to the gulf. The banks on both sides of the Chetimachas are
generally

generally higher than those of the Mississippi, and so elevated in some places as never to be overflowed. The ground rises gradually from its banks about 200 yards, and then gently descends to extensive cypress swamps. The natural productions are the same as on the Mississippi; but the soil, from the extraordinary size and compactness of the canes growing on it, is something superior. If measures were adopted and pursued with a view to improve that communication, there would soon be, on its banks, the most prosperous and important settlements of that colony.

Nine miles above the Chetimachas is the concession of monsieur Paris, a pleasant situation and good land. Large herds of cattle are generally kept here, belonging to the inhabitants of Point Coupée.

The settlements of the Acadians are on both sides of the river, and reach from the Germans to the Ibberville. These are the remainder of the families which were sent by gen. Lawrance from Nova-Scotia to the then british southern provinces; where, by their industry, they did and might have continued to live very happy, but that they could not publicly enjoy the roman catholic religion, to which they are greatly bigotted. They took the earliest opportunity, after the peace, of transporting themselves to St. Domingo, where the climate disagreed with them so much, that they, in a few months, lost near half their numbers; the remainder, few only excepted, were, in the latter end of the year 1763, removed to new Orleans at the expence of the king of France. There are about 300 families of this unfortunate people settled in different parts of Louisiana. They are sober and industrious; they clothe themselves in almost every respect with the produce of their own fields and the work of their own hands, and are very obedient and useful subjects.

The river Ibberville is 99 miles from new Orleans, 204 miles from the Balize, and 270 miles from Pensacola, by the way of the lakes Ponchartrain and Maurepas.

In 1765 a post was established here, and the garrison, which was a detachment of the 34th regiment, withdrawn in the month of July in the same year. In December 1766, this post was repossessed, and a small stockaded fort built by a party of the 21st regiment, and was demolished and abandoned in 1768. And in the year 1778 it was again possessed by part of the 16th regiment, who were made prisoners by the Spaniards in the year following.

Before the cession of Louisiana to Spain, the peltries of the british and french shores of the Illinois have been mostly carried in the british dominions, either in Canada, by the upper parts of the Mississippi through Michillimackinac, or by the way of new Orleans at the mouth of that river. Philadelphia and new York have also received great quantities of peltries in return for their flour and the dry goods which they have sent to new Orleans, for the indian trade, or the use of the inhabitants. Pensacola received likewise large parcels of skins and furs, which have been exported thence to London, to South-Carolina, or other parts of America. This is the reason why the importance of the Illinois or upper Mississippi has, till now, been little known. It is even certain, that it has been artfully concealed by many, who availed themselves of the ignorance of the public on that head.

This would not have been the case, had not the british government withdrawn in 1768, the garrison of fort Bute, which was constructed at Manchac, on the bank of the Mississippi, opposite to another fort which the French erected in 1767, at the distance of about 400 paces from the british fort. These forts were situated near the place which, in the treaty of peace in 1762, is described as the mouth of Iberville river to the north of new Orleans island, and the then boundary-line of the possessions of the two crowns in those parts; but the plenipotentiaries of the two powers were misinformed; for, as we have already observed, the city of new Orleans is not in an island, but on the continent. Or if the tract of land on which that city is situated, can be termed an island, that name can with propriety be applied to it during only two, or at most three months every year, when the Mississippi overflows; an accidental communication with lake Ponchartrain is then opened through the gut of Iberville. It may be dignified, during that short period, with the title of river, but dries up as soon as the Mississippi ceases to overflow. At any other time the walking from english to french, now spanish Manchac, is perfectly dry.

This place, if attended to, might be of consequence to the commerce of West-Florida; for it may with reason be supposed, that the inhabitants and traders who reside at Point Coupée, at Natchitoches, Attacappa, the Natchez, on the east side of the Mississippi above and below the Natchez, at the Illinois, and St. Vincents on the Ouabache, would

would rather trade at this place than at new Orleans, if they could have as good returns for their peltry and the produce of their country; for it makes a difference of ten days in their voyage, which is no inconsiderable saving of labour, money, and time. The only difficulty which opposes itself to this necessary establishment, is the want of a navigation through the river Ibberville, so that vessels might carry on a constant intercourse betwixt this place and Pensacola without going up the Mississippi, which is a more tedious navigation. However, this difficulty is greatly obviated by a good road made for carriages between the navigable water of the Ibberville (a distance of ten miles) and the Mississippi; and when the latter is high enough to run into the former, which it generally is during the months of May, June, and July, vessels drawing from three to four feet, or more, may then pass from one to the other.

About a mile above the Ibberville, on the east side of the Mississippi, there is a village of Alabama Indians, consisting of 25 warriors.

From the Ibberville to the settlements of Point Coupée is 35 miles; they extend full 20 miles on the west side of the Mississippi, and there are some plantations back on the side of what is generally called, la Fausse Riviere, through which the Mississippi passed about 70 years ago, making the shape of a crescent. The fort, which is a square figure with four bastions, built with stockades, is situated on the same side of the Mississippi, about four miles and a half above the lowest plantation. The inhabitants of Point Coupée amount to about 2000 of all ages and sexes, and 7000 slaves. They cultivate tobacco, indigo, and indian corn; raise vast quantities of poultry, which they send to market at new Orleans, and furnish to the shipping. They square a great deal of timber and make staves, which they convey in rafts to new Orleans. Eight miles above the fort at Point Coupée, on the same side of the river, is a small village of the Affagoula Indians. They have only about a dozen warriors.

On the east side of the river, and opposite to the upper plantations of Point Coupée, is the village of the Tonicas, formerly a numerous nation of Indians; but their constant intercourse with the white people, and immoderate use of spirituous liquors, have reduced them to about 20 warriors.

About ten miles above the Tonicas village, on the same side of the river, is a village of Pascagoula Indians, of 20

warriors; and a little lower down, on the opposite side, there is a village of Biloxi Indians, containing 30 warriors.

The Chefalaya is about 30 miles above the settlement of Point Coupée, and three miles below the mouth of the river Rouge. It is the uppermost mouth of the Mississippi, and after running many miles through one of the most fertile countries in the world, falls into the bay of St. Bernard, a considerable distance westward of the mouths of the Mississippi.

Fifty-four miles from the Mississippi down the Chefalaya, on the eastern side, is the place called the Portage, just above the mouth of a small rivulet. This portage is 18 miles from Point Coupée. Twelve miles below this portage is a narrow island 24 miles long. The eastern channel is choked up with logs, but the western affords good navigation. The river Appaloufa communicates with this channel nearly opposite the middle of the island, on the west side. There are two settlements on the Appaloufa; the first is 30 miles, and the other 12 miles further, from its mouth. In descending the Chefalaya it is three miles from the last mentioned island to Isle au Vauche; and to the bay de Chefalaya, which is on the eastern side of the river, it is three miles more. This bay is of a triangular figure, about six miles in length, and something better than a mile in width at its entrance. When the Chefalaya is not raised with freshes, there is seldom more than five feet water in this bay. Fifteen miles from it on the eastern side, is the bay of Plaquimenes. About half the distance between these bays, is a rivulet which communicates with the former bed of the Mississippi, back of Point Coupée, during the annual floods in that river. The country between them is very low, swampy, and full of ponds of water.

Near the source of the Chefalaya the current is very rapid, but gradually diminishes to the mouth, where it is very gentle.

We will now return to the Isle au Vauche, and proceed from thence to lake de Portage, which is three miles from the island. This lake is 13 miles long, and not more than one and a half broad. It communicates at the southern end, by a strait a quarter of a mile wide, with the grand lake of Chetimachas, which is 24 miles in length and 9 in width. The country bordering these lakes is low and flat, and timbered principally with cypress, some live and other kinds of oak; and on the eastern side, the land between it and the Chefalaya

Salaya river is divided and again subdivided by innumerable small streams, which occasion as many islands. Some of these streams are navigable.

At a little distance from the south-eastern shore of the lake Chetimachas, is an island where persons passing that way generally halt as a resting-place. Nearly opposite this island, along the western shore, there is an opening which leads to the sea. It is about 150 yards wide, and has 16 or 17 fathoms water. From the lake along this opening it is three miles to the Tage river, which is on the north side. Three small rivulets fall in on the same side, in the above distance; and three miles below the Tage river on the western side is a large savanna known by the name of Pararie de Jacko. From this savanna it is about 33 miles to the sea.

In ascending the Tage river, it is ten leagues from its mouth to an old indian village, on the east side, called Mingo Luoac, which signifies Fire Chief. From this village to the habitation of mons. Mals, which is on the west side, it is two leagues. One and a half leagues further up, on the east side, is the village de Selieu Rouge, from whence there is a portage of half a mile to lake Chetimacha. Two leagues further up the river, and on the west side, is the habitation of mons. Sorrel. From whence, to the town la Nouvelle Iberie, on the same side, it is six leagues. The whole of this distance is tolerably well settled. From this town about six leagues westerly across the country is situated the village de Skunnemoke or the Tuckapas, on the Vermilion river, which runs into the bay of St. Bernard. The river Tage is in general better than 100 yards wide, with a gentle current, and a small ebb and flow of about eight or ten inches. It narrows as you ascend it, where in some places it is not 50 yards over. Vessels drawing from seven to eight feet water may go from the sea to this town without any obstructions. About three leagues above la Nouvelle Iberie is la Force point, formerly settled by french neutrals. It is now inhabited by creoles of the country, Spaniards from the Canary islands, and a few English from the eastern side of the Mississippi. Then to la Shute branch, which passes over a fall of about ten feet, near to where it enters into the Tage river, it is three leagues, and inhabited the whole distance. From this branch to mons. Flemming's is two leagues more. A quarter of a mile back from Mr. Flemming's there is a lake three leagues in circuit. From Mr. Flemming's to the

church Defata Cappau, which is on the west side of the Tage, it is one league further, all which is inhabited. From the church to what is called the bottom of the bite, is two leagues, and the whole distance closely settled. From thence to the point settlement of Acadians is one league, to the plantation of monf. Dée is also a league, to the point of monf. Dée it is half a league further. From monf. Dée's to monf. Fuzelliere's is five leagues by water, but only three by land. Fuzelliere's fork, or branch, is just below his house, and divides the districts of Attacappa and Appaloufa. And, at the distance of about two leagues, this branch communicates with the Vermilion river westerly. The river Tage still continues to the eastward. At one and an half leagues from the fork, or branch, is the prairie de monf. Man. To monf. Man's plantation it is one and an half leagues further; from thence upwards the river divides into little brooks, and loses itself in rich and extensive savannas.

All the Indians in this part of the country, consisting of several small tribes, do not exceed 100 families. The white people are about 400 families, and can raise 500 militia. The number of negroes is nearly equal to the whites.

Although this country might produce all the valuable articles raised in other parts of the globe, situated in the same latitudes, yet the inhabitants principally cultivate indigo, rice, tobacco, indian corn, and some wheat; and they raise large stocks of black cattle, horses, mules, hogs, sheep, and poultry. The sheep is said to be the sweetest mutton in the world. The black cattle, when fat enough for sale, which they commonly are the year round, are driven across the country to new Orleans, where there is always a good market.

This country is principally timbered with all the different kinds of oak, but mostly with live oak of the largest and best quality, uncommonly large cypress, black walnut, hickory, white-ash, cherry, plum, poplar trees, and grape vines; here is found also a great variety of shrubs and medicinal roots. The lands bordering the rivers and lakes are generally well wooded, but at a small distance from them are very extensive natural meadows, or savannas, of the most luxuriant soil, composed of a black mould about one and a half feet deep, very loose and rich, occasioned, in part, by the frequent burning of the savannas; below the black mould, it is a stiff clay of different colours. It is said
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this clay, after being exposed some time to the sun, becomes so hard that it is difficult either to break or bend, but when wet by a light shower of rain, it slackens in the same manner as lime does when exposed to moisture, and becomes loose and moulders away; after which it is found excellent for vegetation.

This country being situated between the latitudes of 30 and 31° north, the climate is of course very mild and temperate; white frosts, and sometimes thin ice, have been experienced here; but snow is very uncommon.

The river Rouge is so called from its waters being of a reddish colour, and said to tinge those of the Mississippi at the time of the floods. Its source is in new Mexico, and it runs about 600 miles. The river Noir empties itself into this river about 30 miles from its confluence with the Mississippi, which is 187 miles from new Orleans. The famous Ferdinand Soto ended his discoveries and his life at the entrance of this river, and was buried there. Near 70 leagues up this river the French had a very considerable post, Natchitoches. It was a frontier on the Spanish settlements, being 20 miles from the fort of Adaies. The French fort was garrisoned by a captain's command. There were forty families settled here, consisting mostly of discharged soldiers and some merchants who traded with the Spaniards. A great quantity of tobacco was cultivated at this post, and sold for a good price at new Orleans, being held in great esteem. They sent also some peltry, which they received in trade from the neighbouring Indians.

From the river Rouge to fort Rosalie it is 56 miles and a quarter. This fort is situated in the country known by the name of the Natchez, in 31° 40' north latitude, about 243 computed miles from new Orleans, and 348 from the Balize, following the course of the river. The soil, at this place, is superior to any of the lands on the borders of the river Mississippi, for the production of many articles. Its situation being higher, affords a greater variety of soil, and is in a more favourable climate for the growth of wheat, rye, barley, oats, &c. than the country lower down, and nearer to the sea. The soil also produces, in equal abundance, indian corn, rice, hemp, flax, indigo, cotton, potherbs, pulse of every kind, and pasturage; and the tobacco made here is esteemed preferable to any cultivated in other parts of America. Hops grow wild; all kinds of European fruits arrive to great perfection, and no part of the known world

is more favourable for the raising of every kind of stock. The climate is healthy and temperate ; the country delightful and well watered ; and the prospect is beautiful and extensive, variegated by many inequalities and fine meadows, separated by innumerable copses, the trees of which are of different kinds, but mostly of walnut and oak. The rising grounds, which are clothed with grass and other herbs of the finest verdure, are properly disposed for the culture of vines ; the mulberry trees are very numerous, and the winters sufficiently moderate for the breed of silk-worms. Clay of different colours, fit for glass works and pottery, is found here in great abundance ; and also a variety of stately timber fit for house and ship building, &c. The elevated, open, and airy situation of this country renders it less liable to fevers and agues (the only disorders ever known in its neighbourhood) than some other parts bordering on the Mississippi, where the want of sufficient descent to convey the waters off occasions numbers of stagnant ponds, whose exhalations infect the air.

This country was once famous for its inhabitants, who from their great numbers, and the state of society they lived in, were considered as the most civilized Indians on the continent of America. They lived some years in great friendship with the French, whom they permitted to settle on their lands, and to whom they rendered every service in their power. Their hospitality, it seems, was repaid in such a manner, that they determined to get rid of their guests ; for on the eve of St. Andrew 1729, they surprised the fort, and put the whole garrison to death. At the same time they made a massacre of the inhabitants, in which upwards of 500 were killed ; some of the women and children they made prisoners ; and very few of either sex escaped. The whole colony armed to revenge their slaughtered countrymen, and they had several skirmishes with the Natchez, in which the success was various. In 1730, monsieur de Perrier de Salvert, brother to the governor, arrived from France, with the rank of lieutenant-general in Louisiana, and 500 regular troops, who joined the troops and militia of the colony. This army, amounting to 1500 men, went, under the command of the two brothers, to attack the nation of the Natchez ; who, with their chiefs, determined to defend themselves in a fort they had built near a lake which communicates with the Bayouk Dargent, lying west of the Natchez, and north of the river Rouge. They invested this

this fort, and the Indians made a very resolute and vigorous sally on them, but were repulsed, after a considerable loss on both sides. The French having brought two or three mortars, threw some shells into the fort, which making a havoc amongst their women and children, so terrified the Indians, unused to this sort of war, that they surrendered at discretion, and were conducted to new Orleans; except a few who had escaped to the Chickasaws, with their hunters who were providing provisions for their garrison. Nothing now remains of this nation but their name, by which their country continues to be called. The district of the Natchez, as well as all along the eastern bank of the Mississippi to the river Ibberville, was settling very fast by daily emigrations from the northern states; but the capture of the british troops on the Mississippi, 1779, put an entire stop to it.

From fort Rosalie to the Petit Goufre is 31 miles and a half. There is a firm rock on the east side of the Mississippi for near a mile, which seems to be of the nature of limestone. The land near the river is much broken and very high, with a good soil, and several plantations on it.

From the Petit Goufre to Bayouk Pierre, or Stoney river, is four miles and a quarter. From the mouth to what is called the fork of this river, is computed to be 21 miles. In this distance there are several quarries of stone, and the land has a clay soil with gravel on the surface of the ground. On the north side of this river the land, in general, is low and rich; that on the south side is much higher, but broken into hills and vales; but here the low lands are not often overflowed: both sides are shaded with a variety of useful timber. At the fork the river parts almost at right angles, and the lands between, and on each side of them, are said to be clay and marl soil, not so uneven as the lands on this river lower down.

From the Bayouk Pierre to Loufa Chitto, or the Big Black, at the Grand Goufre, is ten miles. The Big Black (or Loufa Chitto) is, at the mouth, about 30 yards wide, but within, from 30 to 50 yards, and is said to be navigable for canoes 30 or 40 leagues. About a mile and a half up this river, the high lands are close on the right, and are much broken. A mile and a half further, the high lands appear again on the right, where there are several springs of water, but none as yet has been discovered on the left. At about eight miles further, the high lands are near the river,
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on the left, and appear to be the same range that comes from the Yazou cliffs, which are about 12 miles up the Yazou river. At six miles further the high lands are near the river on both sides, and continue for two or three miles, but broken and full of springs of water. This land on the left was chosen by general Putnam, captain Enos, Mr. Lyman, and other New-England adventurers, as a proper place for a town; and, by order of the governor and council of West-Florida in 1773, it was reserved for the capital. The country round is very fit for settlements. For four or five miles above this place, on both sides of the river, the land is rich, and not so much drowned, nor so uneven, as some parts lower down. About six miles and a half further, there is a rapid water, stones and gravel bottom, 160 yards in length; and in one place a firm rock almost across the river, and as much of it bare, when the water is at a moderate height, as confines the stream to nearly 20 feet; and the channel is about four feet deep.

From the Big Black to the Yazou cliffs is 39 miles and three quarters. From this cliff the high lands lie north-eastward and south-south-eastward, bearing off from the river, full of cane and rich soil, even on the very highest ridges. Just at the south end of the cliffs, the bank is low, where the water of the Mississippi, when high, flows back and runs between the bank and high land, which ranges nearly northerly and south-south-easterly to the Louisa Chitto, occasioning much wet ground, cypress swamp, and stagnant ponds.

From the Cliffs, or Aux Cotes, is seven miles and a half to the river Yazou. The mouth of this river is upwards of 100 yards in width, and was found by Mr. Gauld to be in latitude $32^{\circ} 37'$, and by Mr. Purcel in $32^{\circ} 28'$ north. The water of the Mississippi, when the river is high, runs up the Yazou several miles, and empties itself again by a number of channels, which direct their course across the country, and fall in above the Walnut hills. The Yazou runs from the north-east, and glides through a healthy, fertile, and pleasant country, greatly resembling that about the Natchez, particularly in the luxuriance and diversity of its soil, variety of timber, temperature of climate, and delightful situation. It is remarkably well watered by springs and brooks; many of the latter afford convenient seats for mills. Further up this river the canes are less frequent and smaller in size, and at the distance of 20 miles there are scarcely any. Here the country is clear of under-
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wood and well watered, and the soil very rich, which continues to the Chaftaw and Chickasaw towns. The former is situated on the eastern branch of the Yazou, 100 miles from the mouth of that river, and consists nearly of 140 warriors; the towns of the latter are about 15 miles west of the north-west branch, 150 miles from the Mississippi. They can raise upwards of 500 warriors. The above branches unite 50 miles from the Mississippi, following the course of the river; the navigation to their junction, commonly called the fork, is practicable with very large boats in the spring season, and with smaller ones a considerable way further, with the interruption of but one fall, where they are obliged to make a short portage, 20 miles up the north-west branch, and 70 miles from the Mississippi. The country in which the Chaftaw and Chickasaw towns are situated, is said to be as healthy as any part of this continent, the natives scarcely ever being sick. Such of them as frequent the Mississippi, leave its banks as the summer approaches, lest they might partake of the fevers that sometimes visit the low swampy lands bordering upon that river. Wheat, it is said, yields better at the Yazou than at the Natchez, owing probably to its more northern situation. One very considerable advantage will attend the settlers on the river Yazou, which those at the Natchez will be deprived of, without going to a great expence; I mean the building with stone, there being great plenty near the Yazou, but none has yet been discovered nearer to the Natchez than the Petit Goufre, or little Whirlpool, a distance of 31 miles and a half. Between this place and the Balize there is not a stone to be seen any where near the river. Though the quantity of good land on the Mississippi and its branches, from the bay of Mexico to the river Ohio, a distance of nearly 1000 miles, is vastly great, and the conveniences attending it; so likewise we may esteem that in the neighbourhood of the Natchez, and of the river Yazou, the flower of it all.

About a mile and a half up the Yazou river, on the north side, there is a large creek, which communicates with the Mississippi above the river St. Francis, about 100 leagues higher up, by the course of the river. It passes through several lakes by the way. At the distance of 12 miles from the mouth of the river Yazou, on the south side, are the Yazou hills. There is a cliff of solid rock at the landing-place, on which are a variety of broken pieces of sea shells, and some entire.

entire. Four miles further up is the place called the Ball Ground, near which a church, fort St. Peter, and a french settlement formerly stood. They were destroyed by the Yazou Indians in 1729. That nation is now entirely extinct.

From the Yazou to the river Arkansaw is 158 miles and a quarter. It is so called from a nation of Indians of the same name. Its source is nearly in the latitude of Santa Fé in new Mexico, and it is said to be navigable for batteaux 750 miles. It runs through an immensely rich and fertile country. About 10 or 12 miles up this river from the Mississippi there was formerly a fort, garrisoned generally by a company of spanish soldiers, for the purpose of defending the trade carried on between new Orleans and the several villages of St. Genevieve, &c. and particularly for defending the commerce with the Arkansaw Indians, consisting of about 280 warriors, who are as much attached to the french interest, as the Chickasaws are to that of the English. No settlements were made here, except one or two for the immediate accommodation of the garrison. The inundation of the Mississippi, about three years ago, occasioned the evacuation of the above post, and the establishment of another on the northern bank of the river 36 miles higher up. This post, consisting of a subaltern's command, six pieces of cannon, and eight swivels, was attacked about 18 months since by a party of Chickasaws, who killed ten soldiers of the garrison, and soon after concluded a peace with the Spaniards. There is a hamlet close to the fort, inhabited only by merchants and traders. The Arkansaw river discharges itself into the Mississippi by two channels, about 15 miles from each other; the uppermost is called Riviere Blanche, from its receiving a river of that name, reported to be navigable 600 miles, and the soil through which it runs equal in quality to any on the Mississippi.

From the Arkansaw river to the river St. Francis, which is on the west side of the Mississippi, is 108 miles. This is a small river, and is remarkable for nothing but the general rendezvous of the hunters from new Orleans, who winter there, and collect salt meat, suet, and bears oil, for the supply of that city. Formerly the French had a post at the entrance of this river, for a magazine of stores and provisions during their wars with the Chickasaws, by whom their Illinois convoys were constantly attacked and frequently destroyed.

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From the river St. Francis to the river and heights of Margot, which are on the east side of the Mississippi, is 70 miles and a half. This river is said to be navigable for batteaux a number of miles. It appears to be a pretty little river. The high ground below its junction with the Mississippi affords a commanding, airy, pleasant, and extensive situation for settlements; the soil is remarkably fertile. On this ground, just below the mouth of the river, the French built a fort, called Assumption fort, when at war with the Chickasaws, in the year 1736, but it was demolished in the year following; when a peace with those Indians was concluded.

From the river Margot to the Chickasaw river, which is on the east side of the Mississippi, is 104 miles and a half. The lands here are of an excellent quality, and covered with a variety of useful timber, canes, &c. This river may be ascended during high floods upwards of 30 miles with boats of several tons burden.

From the Chickasaw river to Mine au Fer, or the Iron Mines, on the east side of the Mississippi, is 67 miles and a quarter. Here the land is nearly similar in quality to that bordering the Chickasaw river, interspersed with gradual risings or small eminences. There is a post at this place, near the south boundary of Virginia.

From Mine au Fer to the Ohio river, which is the largest eastern branch of the Mississippi, is 15 miles. This river, and its principal branches, as also the settlements in the Illinois country, are delineated in a map, and very particularly described in a pamphlet which I published in London, the 1st of January 1778; and to them the reader is referred.

Having briefly touched upon all the settlements on, and principal branches of the Mississippi, from the sea to the river Ohio; I shall now just mention the bounds of West-Florida.

The province of West-Florida is situated on the north side of the gulf of Mexico, and extends from the river Appalachicola, which is the boundary between it and East-Florida, to the Regolets at the entrance into lake Ponchartrain, thence through the lakes Ponchartrain and Maurepas, and along the river Iberville to the Mississippi, thence along the Mississippi to the northernmost part of the 31st degree of north latitude, thence by a line drawn due east along the south boundary of the state of Georgia to the river Appalachicola, including all the islands within six leagues of the coast, between Appalachicola and lake Ponchartrain.

I now proceed to make some general observations, which may be of service in making the land when you arrive on the coast of Florida. This is distinguishable many different ways; as by the latitudes, the trenching and direction of the shore, and the soundings and quality of the bottom; to each of which particular attention must be paid.

From cape Blaize in $29^{\circ} 41'$ north latitude, to the Balize at the mouth of the Mississippi, the coast forms a curve, inclining to the northward, for 28 leagues, as far as the east end of Rose island in $30^{\circ} 28'$ north; from thence the land gradually declines to the southward, as far as Mobile point in $30^{\circ} 17'$ north about 30 leagues. Dauphin island, and the other islands, including Ship island, stretch nearly west for the space of 20 leagues, and from the north end of the Chandeleurs, which lies near five leagues to the south-east of Ship island, the coast runs chiefly to the southward till you arrive at the entrance of the river Mississippi.

It is likewise to be observed, that in several places there is double land to be seen over the different bays and lagoons: as at St. Andrew's bay; which may be known by a high white sand hill, near the point of a peninsula, on the left hand going in: at St. Rose's bay; where there is a remarkable red bluff on the east side of the entrance just opposite to the east end of Rose island; over the greatest part of which island double land may likewise be seen from the mast-head and at the bay of Pensacola, the entrance of which is remarkable on account of the red cliff opposite to the west end of Rose island. There is a large lagoon, a little more than a league to the westward of this cliff, about three leagues in length, leaving a narrow peninsula, over which the double land may easily be seen, with a high red bank on the north side about half way: this seems to distinguish it from any other part of the coast. There is a double land at the entrance of the river Perdido; but it is not easily observed at any considerable distance. The same may also be seen over some parts of Dauphin island, and those to the westward of it, viz. Massacre, Horn, and Ship islands, as well as between them; but it appears at so great a distance, that it cannot be mistaken for any part of the coast to the eastward of Mobile point.

The Chandeleurs, which were five in number, when I visited them in the year 1772, extend nearly S. by W. 9 or 10 leagues. The isle aux Grand Gozier lies about 10 or 11 miles to the southward of them, with breakers all the way between.

between. The isle au Briton, or rather a cluster of islands of that name, lie about four miles to the westward of the Grand Goziers, or Great Pelican island : both these and the Chandeleur islands are very low, with some bushes : and behind them, at a considerable distance, there is a chain of low marshy islands and lagoons, bordering the peninsula of Orleans.

This is a dangerous part of the coast to a stranger, both on account of the lowness of the land, which cannot be seen at any distance, as there are no trees, and likewise on account of the above-mentioned shoal between the southernmost of the Chandeleurs and the Grand Goziers, from latitude $29^{\circ} 42'$ north, to $29^{\circ} 32'$ north.

There is however very good shelter for ships, within the north end of the Chandeleurs, in Nassau road, which lies five leagues to the southward of Ship island, and is one of the best for large vessels on the whole coast of Florida ; not only as it affords good shelter from those winds that blow on shore, but as it is, by having no bar, of so easy an access from the sea. Care must however be taken, not to go within three quarters of a mile of the inside of the island, it being shoal near that distance from the shore.

Vessels may go round the north end of it from the sea, in five and a half and six fathoms, at half a mile from the shore ; and afterwards must keep in four and a half and five fathoms, till the north point bears N.N.E. about two miles ; when they may come to an anchor in four fathoms good holding ground, sheltered from easterly and southerly winds.

It would be necessary for vessels to be well acquainted with this road, as easterly winds are frequent on the coast of Florida. There is fresh water to be got any where on the Chandeleurs by digging ; besides which it might be met with in a kind of well, at an old hut near the north end. No wood is to be found here but drift wood, of which there is great plenty along shore.

Nassau road was first discovered by Dr. Daniel Cox of New Jersey, about the time of king William III. who gave it the name of Nassau, in honour of that prince. Doctor Cox had likewise given the name of the Myrtle islands to those which are still so denominated, before the French called them the Chandeleurs ; and they were so named by both, from the candles made of the myrtle wax with which these islands abound.

From

From the west side of the isthmus* of the peninsula of Orleans to the junction of the Ibberville with lake Maurepas, it is 60 computed miles, following the course of the river, which for the first ten miles is not navigable above four months in the year; but there is at all times from two to six feet for three miles further, and between two and four fathoms is the depth the remaining part of the way to the lake.

The river Amit falls into the Ibberville on the north side, about 21 miles from the junction of the Ibberville with the Mississippi. The water of the Amit is clear, with a gravelly bottom. It may be ascended with vessels drawing five or six feet water, about half a dozen miles, and with batteaux 100 miles further. Seventeen miles from the Ibberville this river forks; the western branch, called the Comit, has its source near the country of the Natchez; and the eastern branch, which is the most considerable, rises near the Pearl river: both these branches run through a very fertile country, in some parts hilly, which, as well as the low lands, is covered with canes, oaks, ash, mulberry, hiccory, poplar, cedar, and cypress. The banks in general are high, yet in some parts they are subject to be overflowed. There were a number of inhabitants settled on the Amit and Comit, who had slaves, and who raised indigo, cotton, rice, hemp, tobacco, and indian corn, in great abundance, and all excellent in their kind. They had plenty of horses, cows, hogs, poultry, &c. and the river abounds with a variety of fish.

From the Amit to lake Maurepas is 39 miles, following the Ibberville. The quality of the land and timber on this river is similar to that on the Amit, with this difference, its banks in general are lower and the country less hilly, and

* The river Ibberville was very little known by the English at the treaty of peace in 1762; for notwithstanding the crown has expended some thousands of pounds in clearing the Ibberville, it is not now navigable from the Mississippi towards lake Maurepas, even for a canoe; and when I viewed it on the 10th of October 1766, the surface of the water of the Mississippi was then 24 feet below the bed or bottom of the Ibberville. The Mississippi is the source of the Ibberville, when raised high enough to run into it, and occasions what is erroneously called the island of Orleans to be then an island in fact, but at any other time it is not environed with water; therefore, with what degree of propriety can the Ibberville be termed a river, or the town of new Orleans said to be situated on an island?

there

there is a greater proportion of rice land, and also cypress and live oak: the latter is of an extraordinary quality for ship-building. There were several inhabitants on this river who raised indigo, indian corn, rice, &c. and were in a very thriving way.

Lake Maurepas is about ten miles in length and seven in width, with 10 or 12 feet water in it. The country round it is low, and covered with cypress, live oak, myrtle, &c. Two creeks fall into this lake; one from the north side, called Nattabanie, the other from the peninsula of Orleans.

From the Iberville across the lake, it is seven miles to the passage leading to Ponchartrain. The length of this passage is seven miles, and only 300 yards in width, which is divided into two branches by an island that extends from Maurepas to about the distance of a mile from Ponchartrain. The south channel is the deepest and shortest.

Lake Ponchartrain. The greatest length of this lake is about 40 miles, breadth 24 miles, and depth 18 feet. The following creeks fall in on the north side, Tangipaho and le Comble, four feet deep; Chefuncta, seven; and Bonfouca, six; and from the peninsula of Orleans, Tigahoc, at the mouth of which was a small post. The Bayouk of St. John, which also communicates on the same side, has been already mentioned. The french inhabitants, who formerly resided on the north side of this lake, chiefly employed themselves in making pitch, tar, and turpentine, and raising stock, for which the country is very favourable.

The distance from lake Ponchartrain through the Regolets is ten miles, and between 3 and 400 yards broad, and lined with marshes on each side.

On the south side of the Regolets, and near to the entrance from the sea, there is a large passage into the lake Borgne, or Blind lake, and, by some creeks that fall into it, small craft may go as far as the plantations on the Mississippi; and there is a passage between the lakes Borgne and Ponchartrain: but either by this, or that of the Regolets, six, and sometimes seven feet, is the deepest water through.

Near the entrance at the east end of the Regolets, and on the north side, are the principal mouths of Pearl river, which rises in the Choctaw nation, and is navigable upwards of 150 miles. There is seven feet going into it, and deep water afterwards. In the year 1769, there were some settlements on this river, where they raised tobacco, indigo, cotton, rice, indian corn, and all sorts of vegetables. The land produces

a variety of timber fit for pipe and hogthead staves, masts, yards, and all kinds of plank for ship-building.

From the Regolets to the bay of St. Louis is about 18 miles. This is a small, beautiful, compact bay, with about seven feet water in it: the land near it is of a light soil, and good for pasture. There were several settlers formerly on it, but in the year 1767, the Chaetaw Indians killed their cattle and obliged them to remove.

From this bay to the bay of Biloxi, is 26 miles. Just opposite to Ship island, on the main land, is situated old Biloxi, in a small bay of the same name, behind l'Isle au Chevereuil, or Buck or Deer island. This is the place where the French made their first establishment in Louisiana: but they did not continue there long, finding it in every respect an improper situation for the capital. There are still a few inhabitants at Biloxi, some of whom are the offspring of the original settlers. Their chief employment is raising of cattle and stock, and making pitch and tar: but the natives are very troublesome to them.

From the Biloxi to the Pascagoula river is about 13 miles. This river empties itself by several mouths; between the easternmost and westernmost of which, there is a space of between three and four miles, that is nearly one continued bed of oyster-shells, with very shoal water. The only channel is at the westernmost entrance, where there are four feet. This large river about 20 miles above its entrance is divided into two branches, which continue their course to the sea, generally about five or six miles asunder. The intermediate space, for several miles above its mouth, is nothing but marshes intersected by lagoons. After getting into either of the branches, there is from three to six fathoms, and the river is said to be navigable for more than 150 miles.

The soil on this river, like all other rivers on the coast of West-Florida, grows better the higher up you go; but even near the entrance it is far from being bad. There are some good plantations on the east side; but here, as well as all the way to the westward, the inhabitants are much molested by the natives, especially by the Chaetaws, who kill their cattle, &c.

From the Pascagoula river to the Pass au Heron at the bay of Mobile is 18 miles. This pass has four feet water; and from thence to the point, which is on the east side of the bay of Mobile, in latitude $30^{\circ} 17'$ north, is nearly six miles.

Before describing this bay, I shall here take notice of the follow-

following islands situated along the coast, between the bay of St. Louis and the point of Mobile.

Cat island lies about eight miles eastward of the bay of St. Louis, and seven miles from the coast: it is six miles in length, very narrow, and of an irregular shape, with a large shoal from the east end of it, extending within two miles of Ship island. The soil is poor, producing nothing but pine, some live oak and grass, and its shore is almost everywhere covered or bordered with an immensity of shells.

The marshy islands near the peninsula of Orleans, are distant about three miles south of Cat island; and between them there is a channel of nine feet, which continues to the Regolets through a number of shoals.

Ship island is situated between seven and eight miles east of Cat island, and about ten miles south of the bay of Biloxi. This island is nine miles in length and two miles in width where broadest. It produces pine trees and grass, and there is a well of tolerable water on it. The western part of this island is very narrow, and for better than three miles there is not a tree on it. A shoal runs out due south, about a mile from the west end. The channel is better than a mile wide, with from four to five and six fathoms; but the bar has only 21 feet. In going over it from the sea the course to be steered is due north, keeping the above shoal near half a mile to the eastward, and after fairly passing the end of the island, from the inner part of which lies a shoal, the course proceeds N. E. until the broadest part of the point of the island bears due south about one mile and a half, where there is between four and five fathoms. This is a good place to anchor in the summer-time; but is very much exposed in winter, when the northerly winds prevail; and is a very convenient place for shipping the produce of the rivers Pearl, Iberville, and Amit, and the lakes Maurepas and Ponchartrain.

From Ship island to Horn island is between five and six miles, with a small key called Dog island between, about two thirds of the way, and with a shoal all the way from the former to about a quarter of a mile of the latter, where there is a channel of five fathoms. The above shoal extends south of the channel nearly two miles, where there is a bar of 15 feet: in crossing of which it behoves the mariner to keep about half a mile from the shore, and to steer for the end of the island, and on approaching it to give it a birth of about a cable's length, to avoid a shoal on the left; after

passing of which he ought to keep a little to the westward, on account of a shoal that runs from the inside of the island, then to haul round to the eastward, where there is better than 15 feet water, a little more than a mile from the island.

Horn island is nearly 17 miles in length, and about half a mile in width. There are more trees on the middle of the island than in any other part of it; and for about three miles from the east end there are no trees at all, but there are a number of sandy hillocks.

Round island lies about five miles north from opposite the middle of Horn island, and is well timbered.

The island of Massacre is upwards of two miles to the eastward of Horn island, from which a shoal extends better than a mile and a half between them, leaving a channel of about 11 feet round the west end of Massacre island; but within the island there is between three and four fathoms.

Massacre is nearly nine miles long and very narrow; it is remarkable for a grove of trees in the middle, which is the more particular, as there is not a tree any where else on the island.

The distance between Massacre island and the main is about ten miles, from two to three fathoms all the way across; except one large shoal called la Grand Bature, which stretches out from the main land about a league, with two or three feet water on it, and in some places not so much. Behind it, there is a large bay called l'Ance de la Grand Bature, eight miles east of Pascagoula bluff.

The land here and to the eastward, as far as the bay of Mobile, is swampy towards the sea, with a clay bottom for two or three miles back; but afterwards it is covered chiefly with pines, live oak, and hiccory, and the soil is sandy or gravelly for several miles, before it becomes truly fit for culture; notwithstanding which it is good for pasture.

From Massacre to Dauphin island is five miles, with a shoal all the way between them. These are supposed formerly to have been but one, which went by the general name of Massacre, so called by mons. d'Ibberville, from a large heap of human bones found thereon at his first landing; but it was afterwards called Dauphin island, in honour of the dauphin of France, and to take off the disagreeable idea excited by the other name.

Dauphin island is about ten miles long, and in the broadest part not quite two miles. The west end, for between three and four miles, is a narrow slip of land, with some dead trees;

trees; the rest is covered with thick pines, which come close to the water's edge on the east side, forming a large bluff. There are the remains of an old french post on the south side of the island; about two miles from that bluff are a few old houses on the north side opposite to it, near which are large hillocks of oyster-shells, now covered with dwarf cedar and live oak. There are many such vestiges of the ancient inhabitants in several bays and other places on the coast; and as these are always found on high banks, the usual places where the native encamp, it cannot well be supposed they were left there by the sea, though many are of that opinion.

Gillori island is divided from Dauphin island on the north side by a narrow channel, through which a boat may pass with some difficulty; and between Gillori and the main land, on the west side of Mobile bay, there is a chain of small islands, and oyster-shells, through which there is a passage of four feet, called *Passe au Heron*, where small craft may go from Mobile bay to the westward within the islands. There is likewise a passage for small boats and canoes from the west side of the bay of Mobile, through what the French call *Riviere aux Poules*, which falls in opposite to the west end of Dauphin island, and cuts off a considerable space of ground.

Just opposite the old fort, on the south side of Dauphin island, distant one mile, lies great Pelican island, which is about a mile in length, and very narrow. It stretches to the S. E. in form of a half moon, the concave side being towards the east end of Dauphin island. There are neither trees nor bushes on it, but here and there large tufts of grass like small reeds, on the sandy parts near the sea side.

Hawk's bay is between Pelican and Dauphin islands. There is a broad channel of 11 and 12 feet, afterwards safe anchorage in four fathoms good holding ground, and well sheltered from most winds; on which account it is very convenient for small vessels.

There is a small sand key called little Pelican island, about a league S. E. from great Pelican island, forming a curve to the eastward, and there it meets a large shoal extending from Mobile point

The deepest water on the bar of Mobile, or rather of Mobile bay (for there is another bar at the entrance of the river near the town), is only 15 or 16 feet. The mark for going over it in the deepest channel, is to bring little Pelican

can island well on with the bluff on the east end of Dauphin island, bearing about N. N. W. $\frac{3}{4}$ W. and then to steer in for the key in that direction. The point of Mobile bears from the bar nearly due north four miles, and the key is more than a mile and half within it. Both the east and west reefs, as well as the bar itself, are steep towards the sea, there being from three to seven and eight fathoms immediately without; this occasions a constant swell with a heavy sea when it blows from the southward: and therefore, in rough weather, it would be imprudent to go over it in a vessel that draws above ten or eleven feet water. Within the bar it deepens gradually towards little Pelican island, between which and the east reef the channel is not more than a quarter of a mile broad, with six or seven fathoms water. This depth continues all the way round Mobile point, where is tolerable good anchorage in four or five fathoms, but it is at best an open roadstead, the bay being too large to afford much shelter.

From Mobile point to the town the distance is about 11 leagues nearly due north, and the breadth of the bay in general is about three or four leagues. At the lower part of it is a deep bite that runs about six leagues to the eastward of the point, having a narrow peninsula between it and the sea. The river Bon Secour falls into the bottom of this bay or bite, and Fish river with that of la Sant on the north side of it; on all of which there are several habitations.

On the west side of the bay of Mobile there are likewise some small rivers, but none considerable, besides la Riviere aux Poules, by which there is a small inland communication to the westward, and Dog river, which falls into the bay about nine miles below Mobile. The former has five or six feet in the entrance, and is navigable for a boat several miles back into the country. With regard to the general depth of the water in the bay, there is from two to three fathoms two-thirds of the way from Mobile point towards the town, and the deepest water to be depended on in the upper part of the bay is only 10 or 12 feet, and in many places not so much; but there is no danger, as the bottom is soft mud. Large vessels cannot go within seven miles of the town.

Notwithstanding all these inconveniences in point of navigation, Mobile having hitherto been the frontiers of the french dominions in Louisiana, always was, and now is, a
very

very considerable place. It has a small regular fort, built with brick, and a neat square of barracks for the officers and soldiers. The town is pretty regular, of an oblong figure, on the west bank of the river, where it enters the bay.

There is a considerable indian trade carried on here. Mobile, when in possession of his britannic majesty, sent yearly to London, skins and furs amounting from 12 to 15,000 pounds sterling: it was then the only staple commodity in this part of the province. The british garrison at Mobile surrendered to the arms of his catholic majesty in the year 1780.

The bay of Mobile terminates a little to the north-eastward of the town, in a number of marshes and lagoons: which subject the people to fevers and agues in the hot season.

The river of Mobile is divided into two principal branches, about 40 miles above the town: one of which, called the Tanfa, falls into the east part of the bay; the other empties itself close by the town, where it has a bar of seven feet; but there is a branch a little to the eastward of this, called Spanish river, where there is a channel of nine or ten feet, when the water is high; but this joins Mobile river about two leagues above the town.

Two or three leagues above the Tanfa branch, the Alabama river falls into Mobile river, after running from the N. E. a course of about 130 miles; that is, from Alibama fort, situated at the confluence of the Coussa and Talpouse, both very considerable rivers; on which and their branches are the chief settlements of the upper Creek Indians.

The french fort at Alibama was evacuated in 1763, and has not been since garrisoned. Above the confluence of Alabama and Mobile, the latter is called the Tombecbe river, from the fort of Tombecbe, situated on the west side of it, about 96 leagues above the town of Mobile. The source of this river is reckoned to be about 40 leagues higher up, in the country of the Chickasaws. The fort of Tombecbe was taken possession of by the English, but abandoned again in 1767, by order of the commandant of Pensacola. The river is navigable for sloops and schooners about 35 leagues above the town of Mobile. The banks, where low, are partly overflowed in the rainy seasons, which adds greatly to the soil, and adapts it particularly to the cultivation of rice. The sides of the river are covered in many places

with large canes, so thick that they are almost impenetrable; there is also plenty of remarkable large red and white cedar, cypress, elm, ash, hiccory, and various kinds of oak. Several people have settled on this river, who find the soil to answer beyond expectation.

The lands near the mouth of the Mobile river are generally low: as you proceed upwards, the land grows higher, and may with great propriety be divided into three stages: first, low rice lands on or near the banks of the river, of a most excellent quality: secondly, what are called by the people of the country second low grounds, or level flat cane lands, about four or five feet higher than the low rice lands: and, thirdly, the high upland or open country. The first, or low lands, extend about an half or three quarters of a mile from the river, and may almost everywhere be easily drained and turned into most excellent rice fields, and are capable of being laid under water at almost all seasons of the year. They are a deep black mud or slime, which have, in a succession of time, been accumulated, or formed by the overflowing of the river.

The second low grounds being, in general, formed by a regular rising of about four or five feet higher than the low lands, appears to have been originally the edge of the river. This second class or kind of land is in general extremely rich, and covered with large timber and thick strong canes, extending in width upon an average three quarters of a mile, and in general a perfect level. It is excellent for all kinds of grain, and well calculated for the culture of indigo, hemp, flax, or tobacco.

At the extremity of these second grounds, you come to what is called the high or upland, which is covered with pine, oak, and hiccory, and other kinds of large timber. The soil is of a good quality, but much inferior to the second or low land. It answers well for raising indian corn, potatoes, and every thing else that delights in a dry light soil. Further out in the country again, on the west side of this river, you come to a pine barren, with extensive reed swamps and natural meadows or savannas, which afford excellent ranges of innumerable herds of cattle.

On the east of the river Mobile, towards the river Alabama, is one entire extended rich cane country, not inferior perhaps to any in America.

Whenever portages are made between the Mobile and Cherokee river, or their branches, which are probably but
a few

a few miles apart, the Mobile will be the first river for commerce (the Mississippi excepted) in this part of the world, as it affords the shortest and most direct communication to the sea.

The land to the eastward of Mobile point, for about three leagues on the peninsula, is remarkable for alternate spaces of thick and thin trees. The point is covered with a grove of thick but not very tall ones. There is a small lagoon about four leagues to the eastward of the point, with hardly water at the entrance for a boat, the trees about which are very tall and thick. There are several hillocks to the eastward along shore, all the way from thence to the river Perdido, except at one place, about two-thirds of the way; where double lands may be seen over a lagoon which stretches to the westward of that river.

The river Perdido empties itself into the sea about ten leagues to the eastward of Mobile point, and four leagues to the westward of the bar of Pensacola. The entrance is narrow, with a bar of six feet; but afterwards it widens considerably, stretching first to the N. E. upwards of a league, where it goes within a mile of the head of the great lagoon west of the entrance of Pensacola harbour. From this the Perdido turns to the westward for three or four miles, where it forms a large bay. This river was formerly the boundary between Florida and Louisiana, dividing the french and spanish dominions.

There is nothing remarkable between the river Perdido and the bar of Pensacola, except the grand lagoon, which reaches near to the Perdido, with some straggling trees on the peninsula, and the high red bank on the north side of it, before mentioned. The soundings between the bars of Mobile and Pensacola are pretty regular, except near the bars, where there is deep water along shore, as they stretch out. It is necessary in nearing them, to keep a good offing till their respective marks are on for going over in the deepest channel. Immediately without them there is very deep water, from 7 to 12 and 13 fathoms, oozy bottom, and good holding ground. At the same distance from the shore between them there is only six or eight fathoms; the bottom in general is fine white sand with black specks and broken shells: in some places a coarser bottom, and in others oozy sand.

The west end of the island of St. Rosa stretches athwart
the

the mouth of the harbour, and defends it from the sea. It would be difficult to ascertain the entrance, were it not for a remarkable red cliff which not only distinguishes the place, but is a mark for going over the bar in the deepest water.

The bar of Pensacola is of a semicircular form, with the convex side to the sea, and lies at a considerable distance from the land; occasioned, no doubt, by the conflict between the sea and the bay. The bar runs in a curve from the west breakers all the way to the eastward of the fort, or signal-house, on Rose island, the outer end of it extending about a mile without the breakers; it is a flat, hard sand, but the bottom on both sides is soft, oozy ground. After entering on the bar in the deepest channel, the old fort on Rose island bears N. E. $\frac{1}{4}$ N. two miles and a half; the middle or highest red cliff, N. $\frac{1}{2}$ W. three miles and a half. In coming from the eastward or westward it is best to keep in six or seven fathoms, till the west declivity of the highest part of the red cliff bears about N. $\frac{1}{2}$ W. as above; and then to continue in that direction. The water shoals gradually from four to three and three-fourths fathoms; on the shoalest part it is 21 feet; then it regularly deepens, and the bottom grows softer.

The latitude of the bar of Pensacola is $30^{\circ} 22'$ north, and longitude $87^{\circ} 40'$ west from London, the variation of the compass near 5° east.

When over the bar in five or six fathoms, it is necessary to incline a little towards the western reef, which has deep water close to it, in order to avoid the 10 feet bank that there extends about half a mile S. W. from the point of Rose island. As the line of direction for the deepest water over the bar leads just over the west point of this bank, therefore it is proper to keep within one and a half or two cables length of the breakers (on the north end of which there are two dry sandy keys), till the west point of Rose island is open with the straggling trees to the southward of Deer point, at the entrance of St Rosa channel, when one must haul up to the eastward between them clear of the 10 feet bank. There is a narrow channel of 13 feet between this bank and the point of Rose island. There is also a shoal stretching in a sweep from the red cliff towards the above-mentioned sandy key, therefore care must be taken not to shut in Tartar point with Deer point; but as the soundings

soundings are regular, there is no fear, unless there be little wind, with the tide of ebb, which sets directly on this shoal, and in that case it is necessary to anchor in time.

Within Tartar point the bay is about five or six miles broad, stretching to the north-east towards the town; which is situated on the main land, about eight miles from Rose island. From thence the bay turns more to the eastward, and is divided into two large branches or arms; one of which continues to the eastward about 18 miles from Pensacola, and the other to the northward nearly the same distance, from three to five miles broad.

Between Tartar point and Pensacola there are two large lagoons, the southernmost of which runs behind the red cliff.

All the west side of the bay, which forms a sweep towards the town, is shoal for upwards of half a mile off shore, but the soundings are regular to it. There is no danger in the bay between Pensacola and Rose island, except a shoal that runs from Deer point, which ought to be attended to in working up or down the harbour. It is the more dangerous, as there is no warning given by the soundings; for from six fathoms, in a few casts of the lead, you have but as many feet. It runs more than half a mile to the westward from the point. The governor's house in the fort bears from the extremity of it N. $\frac{1}{2}$ E. three miles and a half, and English point N. N. E. $\frac{1}{4}$ E. five miles. The best anchorage for large vessels is just abreast of the town, in four fathoms, about one-third of a mile off shore; taking care not to bring the governor's house more to the westward than N. W. $\frac{1}{4}$ W. on account of a shoal that runs off from Indian point at the east end of the town. As the tides in that offing run nearly east and west, ships should be moored accordingly.

The bay of Pensacola was first discovered by Pamphilio de Narvaez in 1525*. After him, several other Spanish adventurers visited it, who gave it different names; as *Porta da Anhusa*. *Bahia de St. Maria*, &c. But Pensacola was the proper name of it among the Indians, which it will henceforth probably retain. The first establishment the Spaniards made here was in 1696; when don Andrea de

* But the Florida coast was previously discovered by Sebastian Cabot in 1497, and by John Ponce de Leon in 1512.

Arrivola was appointed governor of this province, which then comprehended a very large tract of land on the gulf of Mexico. He built a small stockado, which he called fort St. Charles, with a church, &c. just by the red cliff at the entrance of the harbour.

This place was taken in the year 1719, by the French from Mobile. Pensacola fell at that time an easy prey, having only about 150 men to defend it. Shortly afterwards it was retaken by the Spaniards, who were again dispossessed by the French in the same year.

The second time the French made themselves masters of it, they kept possession till the year 1722, when it was restored to the crown of Spain by treaty. The Spaniards in the interim removed to St. Joseph's bay. About the year 1726, they built a small town on the west side of Rose island, near the present fort, or signal-house, which was originally constructed by them, but greatly improved by general Haldimand. The settlement remained there till about the year 1754; but being then partly overflowed in a gale of wind, the town was removed to the place where it now stands. After this country was ceded to the English by the peace of 1762, many places were pointed out as conveniently situated for the purpose of building a town; but on due examination, the present situation was generally preferred, and the present town regularly laid out in the beginning of the year 1765.

The town of Pensacola is of an oblong form, and lies almost parallel to the beach. It is about a mile in length, and a quarter of a mile in breadth, but contracts at both ends. At the west end is a fine rivulet, from which vessels are supplied with water. The present fort was built by the writer of this narrative, in 1775, with cedar pickets, with four blockhouses at proper distances, which defend or flank the works. It takes up a large space of ground just in the middle of the town, which it divides in a manner into two separate towns, and can be of no great service towards the defence of the place, in case an attack be made on it, either by the natives or a civilized enemy.

The town of Pensacola is surrounded by two pretty large brooks of water, which take their rise under Gage hill, a small mount behind the town, and discharge themselves into the bay, one at each extremity of the town.

The town and fort of Pensacola surrendered to the arms
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of his catholic majesty in the year 1781, and with them the whole province of West-Florida became subject to the king of Spain, as before mentioned.

The hopes of a spanish trade induced many people to settle here, at a great expence; but it did not answer their expectation. The principal objects ought to be the indian trade, indigo, cotton, rice, hemp, tobacco, and lumber, these being the natural produce of the country. Though Pensacola stands in a very sandy situation, yet with pains the gardens produce great plenty of vegetables. Fruit-trees, such as orange, fig, and peach trees, are here in perfection. And the bay abounds with a variety of fine fish.

About a mile to the eastward of Pensacola, between it and the English point, is the east lagoon, which after turning to the N. W. four or five miles, receives the Six Mile brook. This is a pretty little winding stream, on the east side of which is an iron mine, where a large natural magnet was found. There is a fine mineral spring of the chalybeate kind, near the mouth of the lagoon, of which there are several others in this country.

From English point, the bay stretches to the northward. On the west side, near the mouth of the river Escambia, lies Campble-town, a settlement of french protestants, about 10 miles from Pensacola by land, and 13 by water. The spot on which it stands is high, and a very light soil; but its situation being near to the marshes, it is thereby rendered unhealthy, and has been the means of carrying off many of the inhabitants who were sent out in 1766, and were for some time supported by government, in order to manufacture silk; but either for want of proper management, or other reasons, nothing of that kind was attempted, and the place is since abandoned and the town destroyed.

The river Escambia, the most considerable that falls into the bay of Pensacola, empties itself near the head of the north branch, about 12 or 15 miles from Pensacola, through several marshes and channels, which have a number of islands between them, that are overflowed when the water is high. There is a shoal near the entrance, and vessels that draw more than five or six feet cannot be carried into it, even through the deepest channel; but there is from two to four fathoms afterwards. I ascended it with a boat upwards of 80 miles, where from the depth of water it appeared to be navigable for pettiaugers many miles further. It is uncertain where the source of this river is; but supposed

posed to be at a considerable distance, and is very winding in its course.

The lands in general, on each side of the river, are rich, low, or swamp, admirably adapted for the culture of rice or corn, as may suit the planter best; and what gives these low lands a superiority over many others is the great number of rivulets that fall into this river from the high circumjacent country, which may easily be led over any part of, or almost all the rice lands, at any season of the year whatever. Near the mouth of this river are a great number of islands, some of very considerable extent, and not inferior for rice to any in America. The settlements made by messieurs Tait and Mitchell, captain Johnson, Mr. McKinnon, and some others, are very evident proofs of this assertion, who, in the course of two years from their first settlement, had nearly cleared all the expences they had been at in making very considerable establishments; and I am well assured would entirely have done it in another year, had not the Spaniards taken possession of the country.

Further up the river, we meet with other islands, having much higher banks than those below, very fit for raising indian corn, or pulse of all kinds, with a sufficient proportion of rice land on them also. The large island on which Mr. Marshall made his settlement, nearly opposite the old stockaded fort, about 28 miles from Pensacola by land, and 40 by water, is the uppermost island of any note in the river Escambia, and is, without doubt, in point of fertility of soil, equal to any thing to be met with in the country. The westerly part of this last mentioned island is high, and not subject to be overflowed, unless in remarkable high freshes, and then only some particular low parts of it; the rest is high, and well secured against floods: the eastern part of it is low, and liable to be overflowed at some times of the year; the high land extends from about a mile to a mile and a half, from the westernmost branch of the river that surrounds it, and is equal to any on the Mississippi, Amit, or Comit. A more advantageous place for small settlements than this, is not to be met with any where near Pensacola.

The country on each side of the river above this island is higher, and as the water is confined in one channel, forms a most beautiful river, with great plenty of good low lands on each side of it for many miles up. The low lands generally extend from a mile and a half to two miles from the banks

banks of the river, and some places more, when we come to a fine high pine country, intermixed with oak and hiccory land. There are, on both sides of this river, a number of rising grounds or bluffs, which afford delightful prospects on the river, and would be elegant situations for gentlemen's seats. The low lands and islands abound with great quantities of white and red oak for staves, which answer well for the West-India market, and an inexhaustible quantity of cypress for lumber and shingles, together with plenty of red and white cedar for building. The open country, or high lands bordering on these low rich lands, are generally pine, but of a quality superior to most other pine countries, having generally a good soil for five or six inches deep, and well adapted for raising corn, beans, peas, turnips, potatoes, &c.

Perhaps there is no country more beautifully diversified with hills and dales, nor more plentifully supplied with fine streams, than that which borders on the low lands upon this river. But what, in a very particular manner, recommends this part of West-Florida, is the fine and extensive ranges for cattle which are so frequently to be met with here; it being very common for an ordinary planter to have 200 heads, and some 1000 heads, within the vicinity of Pensacola. There is scarcely a stream in these parts but what has water sufficient for saw-mills, and the country abounds with excellent timber for planks, or lumber of all kinds.

The air is pure and healthy, and the planters and negroes enjoy a good state of health the year round. The Indians emphatically call it, on account of the fine streams of water everywhere to be met with, the sweet water country. Great plenty of fish is to be found in this river, and all kinds of wild game are to be met with in great abundance.

With regard to the face of the country between the Escambia and Pensacola, it is varied with vallies and rising grounds. At about 20 miles from Pensacola the soil grows better than it is at the town; the vallies are covered with grass or canes, interspersed with thickets of laurel, myrtle, and casina. There is generally a rivulet running through each of them, either towards the Perdido or Escambia. The rising grounds are chiefly covered with pines, oak, and hiccory.

The north branch of the bay of Pensacola is only navigable for small vessels. It was formerly well settled on each side. The middle land between the north bay and the

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Ouyavalana, or Yellow water, a branch of the east bay, abounds with large tall pines fit for masts, yards, &c.

The Yellow water, or Middle river, enters the east branch of the bay at the N. E. corner, and after going about five or six leagues up the country, the eastern branch ends in a basin or lake at the bottom of a rising ground; but the western branch I have ascended some leagues further. There are several small islands near the entrance of this river, which produce cypresses and small cedars, but the soil is indifferent.

The East river empties into the bottom of the east branch, about six miles from the Middle river. It is about a quarter of a mile broad for two leagues, and then contracts to the breadth of 30 or 40 feet. This river comes from the eastward, running nearly parallel to St. Rose's channel, and its source is about 16 miles from its entrance into the bay.

The peninsula between the bay of Pensacola and St. Rose's channel, which is from one to three or four miles broad, is in general very poor sandy soil. It produces, in some places, large pines and live oak.

Rose island extends along the coast, for the space of near 50 miles, and is nowhere above half a mile broad. It is very remarkable for its white sandy hummocks, and straggling trees here and there. There is a clump of four tall trees close together, which, at a distance, appears like one, about 18 miles from the west end, and another of the same kind about a league further to the eastward. There are likewise several hummocks, more easy to remark than describe; but an attentive person, after once or twice sailing along, can be at no loss to know what part of the coast he falls in with.

The peculiarity of the appearance of Rose island from the sea, and the deep soundings all along it, are of great service to know the coast: there are nine or ten fathoms in some places, within a mile or two of the shore; and, when a frigate is within 16 or 17 fathoms, the tops of the trees on the main land may be descried from the quarter-deck. The bottom is generally fine white sand, with broken shells, and black specks; but in one place off the east end of Rose island, out of sight of land, the bottom is of a coarse gravel, mixed with coral. This ought particularly to be attended to, as it is the only spot with that kind of soundings on the coast: it is of a considerable extent, and there are from 20 to 30 and 40 fathoms on it, or more. There is indeed a coral bottom off the bay of Espirito Santo, and some other parts on the coast of East-Florida, but these generally begin
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in seven or eight fathoms, within sight of land ; from which, and the difference of latitude, one cannot be mistaken for the other.

This is a very extensive bay, stretching about 30 miles to the north-east, and is from four to six miles broad. There is a bar before it with only seven or eight feet where deepest. But afterwards there is 16 or 17 feet, as far as the red bluff on the main land. The channel between this bluff and the east part of Rose island is but narrow ; and a little further on, towards the bay, it is choked up with a large shoal in some places dry ; the deepest water on it is only four or five feet ; so that nothing but very small vessels can enter this bay from the sea : and the channel between Rose island and the main is just sufficient for boats or pettiaugers.

On the north side of St. Rose's bay, almost opposite to the entrance from the sea, there are three pretty large branches, which stretch several miles : the westernmost, which is the largest, is again subdivided into smaller branches, all which have deep water. The other two receive each a considerable rivulet of clear water with a rapid stream. On the banks there is plenty of cedar, &c.

The largest river that falls into St. Rose's bay is the Chahta-hatcha, or Pea river, which runs from the N. E. and enters the bottom of the bay through several mouths, but so shoal that only a small boat or canoe can pass them. I ascended this river about 25 leagues, where there is settled a small party of the Couffac Indians. The banks of this river, in point of soil and timber, resembles very much those of the river Escambia.

Between the bays of St. Rosa and St. Andrew's the coast runs E. S. E. and S. E. by E. for the space of 52 miles, the soundings much the same as off Rose island ; it is to be observed that the trees are thick, and come pretty close to the shore. There are likewise some red hummocks as well as white, which with the trenching of the land may be of service to know that part of the coast.

The entrance of St. Andrew's bay is between a small island on the right hand, and a narrow peninsula on the left. There is a high white sand hill, which is a remarkable object from the sea : it lies in latitude $30^{\circ} 60'$ north, and about ten leagues to the north-west of cape Blaise. From the point of the peninsula, there is a large shoal extending for more than two thirds of the way towards the

island; which is two miles distant, leaving a channel of 17 or 18 feet; but it has a small bar of 13 feet.

There is anchorage just within St. Andrew's island in three fathoms and an half, but it is more commodious within the point of the peninsula in five fathoms, with the advantage of fresh water, which is easily got by digging.

St. Andrew's bay runs first to the N. W. nearly parallel to the sea shore, for three leagues; then it turns to the eastward for about a league, when a large branch breaks off to the S. E. The main body continues to the northward for two leagues, when it is divided into two large branches, one going to the N. E. and the other to the westward. This last, which is the least, reaches within a few miles of St. Rosa's bay. The country between them is low and marshy, and full of fresh-water ponds.

St. Andrew's bay is navigable for any vessels that can go over the bar. There is a large shoal with only three or four feet, about half way up the first reach, but there is a deep channel on the west side of it, and afterwards there is from three to seven fathoms all over the bay. There are no rivers of any consequence, nor can the soil immediately on the bay be much commended; there is however great plenty of large pines, live oak, and cedar.

From St. Andrew's island to the bay of St. Joseph's, the middle of the coast between them runs about E. S. E. near 15 miles, with a shoal all the way between them near the shore, which easily appears, it being of a whitish colour. There is from 12 to 18 feet on the greatest part of it, except towards the mouth of St. Joseph's bay, where there is a bank near the middle, between St. Joseph's point and the main land, with only seven or eight feet, and four fathoms just within; but there is a very good channel with three fathoms on the bar, between that bank and St. Joseph's point, on the right hand going in.

In going into St. Joseph's bay it is requisite to keep within a cable and a half or two cables length of the peninsula, in five or four and a half fathoms, as it shoals regularly towards the point, from which a spit of sand runs out a little way; and when in three fathoms to haul round gradually, still keeping near two cables length off shore. The bar is narrow, and immediately within it there is from four to six and a half fathoms soft ground. The end of the peninsula forms two or three points, from each of which a small spit runs off for a little distance, which may be known by
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the discoloured water on them. This is an excellent harbour; in which the best place for anchoring is just within the peninsula, opposite to some ruins that still remain of the village of St. Joseph. There the Spaniards had a post, which they abandoned about the year 1700, but they took possession of it again in 1719. There is very good water to be got here by digging, and on the north side of the bay are two or three small fresh-water brooks, opposite to which are three or four fathoms close to the shore. In the year 1717, the French erected a fort which they called Crevœur, a mile to the northward of a brook in St. Joseph's bay, opposite to the point of the peninsula, but abandoned it the next year, on the representation of the governor of Pensacola that it belonged to his catholic majesty. The bay is nearly of the figure of a horse-shoe, being about 12 miles in length, and seven across where broadest. Towards the bottom of it are a few small islands, and the water is so shoal that a boat can hardly go near the shore.

The soil on the north side of the bay is very sandy, but there are some spots near the ruins of St. Joseph's that are covered with a kind of verdure, and produce plenty of grapes, some of which are large, of a purple colour, and pretty good to the taste: they were probably planted there by the Spaniards. There are here likewise some small cabbage-trees, of which there are great numbers on St. George's islands beyond cape Blaise, and on all the coast to the eastward. These cabbage-trees do not grow above the height of 20 feet; the bud, or unformed leaves, in the heart, being boiled, has somewhat the taste of cabbage, but is more delicious.

A very good establishment might be made here for a fishery, as the settlers might make salt on the spot to cure the bass, rock, cod, grouper, red mullet, and other kinds of fish, which are here in great abundance; and, when well cured, are little if at all inferior to those brought from the northward.

The peninsula between St. Joseph's and cape Blaise is a narrow slip of land, in some places not above a quarter of a mile broad. The gaps here and there upon it, and the water in the bay appearing through them from the mast-head, together with the trenching of the land about N. N. W. and S. S. E. for near four leagues, make it easily known. the trees about cape Blaise are very thick; and there is a remarkable single tree, like a bush, that stands without the

others towards the point. In case of an easterly wind, there is safe anchorage opposite the thickest trees, in six or seven fathoms, about one or two miles off shore; and there is a large pond of fresh water near the beach, about three or four miles to the eastward of cape Blaise. There is also a remarkable gap among the trees between the sea and the bottom of St. Joseph's bay, where is a narrow isthmus not above 5 or 600 yards broad.

Cape Blaise, where it ends in a low point near two miles from the trees, in latitude $29^{\circ} 40' N.$ is not only remarkable from the aforesaid circumstances, but likewise on account of the irregular soundings that are found a great way out at sea from it. There is a spit of land that runs about two miles from the point in a S. S. E. direction; and there are several banks of three or four fathoms, at the distance of six or seven miles, with deep water from seven to ten fathoms between them. There are even some banks of five and six fathoms almost out of sight of land from the mast-head; but though they may alarm a stranger, there is no danger in going near enough to make the land plain.

There is another cape, or point of land, about six leagues to the eastward of cape Blaise, being an elbow of the largest of St. George's islands, nearly opposite to the river Apalachicola. This point lies in $29^{\circ} 38' N.$ There is a large shoal running out from it a considerable way, but how far has not yet been ascertained. The coast between it and cape Blaise forms a kind of hollow bay, with deep soundings, and a soft bottom. There are two islands to the north-west of St. George's cape; that nearest to it is small, and remarkable for a clump of straggling trees on the middle of it; the other is a pretty large island of a triangular form, and reaches within three leagues of cape Blaise, having a passage at each end of it for small craft into the bay, between these islands and the river Apalachicola: but this bay is full of shoals and oyster banks, and not above two or three feet water at most in any of the branches of that river.

Having thus given an account of the sea-coast of West-Florida, I shall conclude with a few general observations on the seasons, winds, tides, &c. As most of the bars lie a considerable way without the entrance of the bays and rivers, the water seldom rises or falls on them above a foot; but in the bays or channels it rises two or three feet. The tides are irregular, and seem to be governed in a great measure by the winds; but not always by that wind which blows directly

directly on the spot. Though there is generally about 12 hours flood and 12 hours ebb, yet it often happens that there are two tides of each in the space of 24 hours; and sometimes the tide will run one way for the space of 18 hours together, and only five or six hours the contrary, so that nothing can be said with certainty on this subject. By reason of the trade winds blowing in the Atlantic ocean, and continuing into the bay of Mexico, it is natural to suppose that the water, being there hemmed in, will of course force a passage out where it finds the least resistance; which is through the gulf of Florida. From this general principle it should follow, that on the coast of West-Florida it ought to run from west to east, which in some measure would account for the shoals being found at the east end of all the islands on this coast, and deep water on the west ends; but in a large bay, or mediterranean sea, like that of Mexico, where there are so many rivers, bays, &c. the general course of the current must be greatly disturbed. From this proceeds that irregularity which is observable on the north side of the bay of Mexico, where the tide of ebb always sets to the eastward near the shore, and the flood from the southward, or S. E: what it may do in the offing has not yet been examined, nor will it be easily determined.

To the eastward of cape Blaise, the general observations concerning the deep water at the west end of the islands and peninsulas, and vice versa, do not seem always to hold good. Indeed, as far as has been examined of the west part of East-Florida, it is a shoal a considerable way from the land (and therefore ought to be known only to be avoided), except the bay of Espiritu Sancto*, at the entrance of

* The bay of Espiritu Sancto is situated on the west coast of the province of East Florida, in 27° of north latitude. It has a good harbour; but the land all about that coast is very low, and cannot be seen from a ship's deck when in seven fathoms water. Several low sandy islands and marshes, covered with mangrove bushes, lie before the main land. Here is the greatest quantity of fish in the summer time imaginable; which may be caught with a seine, enough to load a ship, if the climate would admit of curing them, even in a few days.

Here is stone proper for building on this coast; also great plenty of deer, and some wild cattle. But the main land near the coast is in general sandy and barren, and is intermixed in many places with vallies capable of improvement for stock of all sorts. The bay and islands before the main land abound with fish and various sorts of wild fowl,

which, in the latitude $27^{\circ} 8'$, there is four fathoms, and safe anchorage.

From the winds that prevail in general on this coast during the months of April, May, and to the middle of June, the weather is mild. The sea and land breezes are pretty regular, and they generally continue so all the summer. In July, August, and most of September, there are frequent squalls, with much rain, thunder, and lightning; and sometimes gales of wind from the south and south-west for several days together. From the middle of October to the end of March, the northerly winds prevail, which at times blow very hard during that season; when the wind changes to the eastward or southward of that point, it is commonly attended with close, hazy, or foggy weather.

It ought to be observed, in sailing in the gulf of Mexico, to be very careful of logs, or driftwood, in the night-time; for when the waters of the Mississippi are high, that river discharges an immense number of large logs, or trees; which, being driven by the winds and currents all over the gulf, may do considerable damage to vessels under full sail.

I shall here subjoin some remarks on the Tortugas, &c. as heretofore published by George Gauld, esq.

As a competent knowledge of the situation of the Dry Tortugas is absolutely necessary for the navigation to and from the north side of the bay of Mexico, and from the West-Indies through the gulf of Florida, a few general remarks concerning them may not be unacceptable to the public at this time.

They consist of ten small islands, or keys, extending E. N. E. and W. S. W. for ten or eleven miles, at the distance of about 30 leagues from the nearest part of the coast of Florida, 40 from the island of Cuba, and 14 leagues from the westernmost of the Florida keys. They are all very low, but some of them covered with mangrove bushes, and may be seen at four leagues distance. The south-westernmost keys, which, in going from Pensacola, Mobile, or the Mississippi, is the corner to be turned, and coming from Cape Antonio, the point to be avoided, lies in $24^{\circ} 32'$ north latitude, and about $83^{\circ} 50'$ west longitude, from the royal observatory at Greenwich; the variation of the compass, by a medium of several observations, is seven degrees east. A reef of coral rocks runs about a quarter of a mile S. W. from these keys, the water on which is discoloured; and in general, wherever there is danger, it may easily be seen from

the mast-head in the day-time. There is a large bank of brown coral rocks, intermixed with white patches of sand, about five or six miles to the westward of the Tortugas, with very irregular soundings from six to twelve fathoms; the bottom appears very plainly; and though it may be alarming to strangers, yet there is no danger. You will find from 13 to 17 fathoms between this bank and the Tortugas.

If you are bound to the eastward, and meet with a strong easterly gale, which is frequent there in the summer season, you may safely come to an anchor in five or six fathoms, under the lee of the long sandy island to the northward of the S. W. key, about a quarter of a mile off shore. The bank of soundings extends only about five or six leagues to the southward of the Tortugas, but much farther to the westward, and all the way to the northward along the Florida shore. This is a lucky circumstance for the safety of navigation in those parts, as caution in soundings may prevent any danger in the night-time; for the soundings are extremely regular all along this bank to the northward, almost to cape Blaise, in latitude $29^{\circ} 41'$: so that by the latitude and depth of water, we generally know how far we are to the eastward or westward. There is a space of several leagues together, from 20 to 50 fathoms; but from 50 or 60 it deepens fast to 70, 80, and soon after no ground.

From the bar of Pensacola to the Dry Tortugas, the true course is S. 30° N. 134 leagues, and therefore S. E. by S. by the compass will carry you clear of them to the westward; but it will be both prudent and necessary to sound frequently when you get into the latitude of $26^{\circ} 25'$, and never stand in to less than 30 fathoms in the night-time, till you are past the latitude of $24^{\circ} 30'$, when you may haul up S. E. by E. or E. S. E. which will carry you near to the Havanna.

There is a broad channel over the bank to the eastward of the Tortugas, of 10 to 17 fathoms; which, in going to and from the coast of West-Florida, &c. might occasionally cut off a great deal of the distance; but that passage is by no means to be attempted, unless you can see the Tortugas distinctly, and keep within two or three leagues of the easternmost of them, as there is a coral bank of only 12 feet at the distance of five leagues; and farther on towards Cayo Marques, the westernmost of the Florida keys, there is a very dangerous and extensive bank of quicksand, on many parts of which there are no more than four or five

feet of water. It is of a remarkable white colour, and may be easily seen and avoided in the day-time.

Having now finished my intended narrative, I shall close it with the following observations upon the probable consequences that will arise to the United States of America, from the possession of so extensive a country, abounding with such a variety of climate, soil, and productions; referring my reader for his further information upon the subject, to the Philosophical Essays published in London in 1772, concerning the state of the british empire on this continent.

There is some amusement at least in reflecting upon the vast consequences, which some time or other must infallibly attend the settling of America. If we consider the progress of the empires which have hitherto existed in the world, we shall find the short duration of their most glorious periods, owing to causes which will not operate against that of North America. These empires were formed by conquest; a great many nations different in character, language, and ideas, were by force jumbled into one heterogeneous power: it is most surprising that such dissident parts should hold together so long. But when the band of union was weakened, they returned to their original and natural separation: language and national character formed many sovereignties out of the former connected varieties. This, however, will be very different with North America; the habitable parts of which, including the dominions of Britain and of Spain, north of latitude 30°, contain above 3,500,000 square miles. It would be unnecessary to remark, that this includes what at present does not belong to our North America. If we want it, I warrant it will soon be ours. This extent of territory is much greater than that of any empire that ever existed, as will appear by the following table:

	Square Miles.
The persian empire under Darius contained	- 1,650,000
The roman empire, in its utmost extent	- 1,610,000
The chinese empire	- - - 1,749,000
The great mogul's	- - - 1,116,000

The russian empire, including all Tartary, is larger than any of these. But I might as well throw into the american scale the countries about the Hudson's bay, for the one is as likely to be peopled as the other; whereas, all I have taken in will assuredly be so. Besides, North America is
actually

actually peopling very fast, which is far enough from being the case with the russian deserts. Now the habitable part of what was once the british dominions alone, in North America, contains above 1,200,000 square miles, or almost equal to any of the above. But the whole, as I before observed, is 3,500,000, or more than the persian and roman empires together. In respect, therefore, to extent, and the means of maintaining numbers of people, it is superior to all. But then comes the advantage which is decisive of its duration. This immense continent will be peopled by persons whose language and national character must be the same. Foreigners who may resort to us, will be confounded by the general population, and the whole people, physically speaking, one: so that those seeds of decay, sown in the very foundation of the ancient empires, will have no existence here. Further, the peopling of this vast tract from a nation renowned in trade, navigation, and naval power, has occasioned all the ideas of the original to be transplanted into the copy. And these advantages having been so long enjoyed, with the amazing and unparalleled situation for commerce between Europe, Asia, and the great southern continent; and America at the same time possessing above other countries, the means of building, fitting out, and maintaining a great navy; the inhabitants of this potent empire, so far from being in the least danger from the attacks of any other quarter of the globe, will have it in their power to engross the whole commerce of it; and to reign, not only lords of America, but to possess, in the utmost security, the dominion of sea throughout the world, which their ancestors enjoyed before them. None of the ancient empires, therefore, which fell a prey to the tartars, nor the present one of China, can be compared to this of North America; which, as surely as the land is now in being, will hereafter be trod by the first people the world ever knew.

TABLE of DISTANCES.

	Miles.
From the Balize, or the mouths of the Mississippi, to	
the Detour aux Plaquemines, is	32
to the beginning of the settlements	20
to the Detour des Anglois	35
	<hr/>
Carried over	87
	<hr/>
	From

	Miles.
Brought over -	87
From the Detour des Anglois to new Orleans -	18
to the villages of the Humas and Alibama Indians	60
to the Fourche de Chetimachas, and indian village of the same name - - -	3
to the concession of, monf. Paris - -	9
to the Ibberville - - - -	27
to Baton Rouge - - - -	18
to the settlement of Point Coupée -	17
to upper end of this settlement, where there is a village of Tunica Indians on the east side -	20
to the Chefalaya, the uppermost mouth of the Mississippi - - - -	30
to the river Rouge - - - -	3
to fort Rosalie, at the Natchez - - -	56 $\frac{1}{4}$
to the Petit Goufre - - - -	3 $\frac{1}{2}$
to the Grand Goufre - - - -	14
to the Yazou cliffs - - - -	39 $\frac{3}{4}$
to the river Yazou - - - -	7 $\frac{1}{2}$
to the river Arkansaw - - - -	158 $\frac{1}{4}$
to the river St. Francis - - - -	108
to the river and heights of Margot - -	70 $\frac{1}{2}$
to the Chickasaw river - - - -	104 $\frac{1}{2}$
to Mine au fer - - - -	67 $\frac{1}{4}$
to the river Ohio - - - -	15
Total -	964 $\frac{1}{2}$

No. II.

An account of the soil, growing timber, and other productions, of the lands in the countries situated in the back parts of the states of New-York and Pennsylvania, in North America; and particularly the lands in the county of Ontario, known by the name of the Genesee tract, lately located, and now in the progress of being settled.

THE lands generally known by the name of the Genesee tract, are situated in the back parts of the state of New-York, and contain upwards of 2,000,000 of acres, mostly good

good arable land, forming nearly an oblong square of 80 miles in length from south to north, and 42 miles wide from east to west.

These lands were granted to messrs Gorham and Phelps, the original purchasers from the state of Massachusetts, in the year 1788. And this grant was afterwards confirmed by the six nations of Indians, who, on receiving a valuable consideration, alienated the whole of this property, and soon after these nations removed themselves and families to a distant country.

The south-east corner of this tract is in latitude 42° , longitude 82° ; lying west from the river Delaware; and 77 miles west from Philadelphia.

The actual distance of the eastern boundary, from the Hudson's river or Albany, is about 140 miles. From Philadelphia, by the nearest road, the distance may be about 180 miles; and not more than 200 miles north of the proposed new city of Columbia, the intended seat of government of the United States.

But the peculiar advantages which distinguish these lands over most of the new settled countries of America, are these following: 1. The uncommon excellence and fertility of the soil. 2. The superior quality of the timber, and the advantages of easy cultivation, in consequence of being generally free from underwood. 3. The abundance of grass for cattle in the woods, and on the extensive meadow grounds upon the lakes and rivers. 4. The vast quantities of the sugar maple tree, in every part of the tract. 5. The great variety of other fine timber, such as oak, hickory, black walnut, chestnut, ash of different kinds, elm, butternut, basswood, poplar, pines, and also thorn trees of a prodigious size. 6. The variety of fruit-trees, and also smaller fruits, such as apple and peach orchards, in different places, which were planted by the Indians, plum and cherry-trees, mulberries, grapes of different kinds, raspberries, huckleberries, blackberries, wild gooseberries, and strawberries in vast quantities:—also cranberries, and black haws, &c. 7. The vast variety of wild animals and game which is to be found in this country, such as deer, moose deer, and elk of a very large size, beavers, otters, martins, minxes, rabbits, squirrels, racoons, bears, wild cats, &c. many of which furnish excellent furs and peltry. 8. The great variety of birds for game, such as wild turkeys, pheasants, partridges, pigeons, plovers, heath-fowl, and indian hen; together with

with a vast variety of water-fowl on the rivers and lakes, such as wild geese, and ducks, of many different kinds not known in Europe. 9. The uncommon abundance of very fine fish, with which the lakes and rivers abound; among which are to be found excellent salmon of two different kinds, salmon-trout of a very large size, white and yellow perch, sheep-heads, pike, succos, and eels of a very large size, with a variety of other fish in their different seasons. 10. The excellence of the climate in that region where these lands are situated, which is less severe in winter, and not so warm in summer, as the same latitudes nearer the sea.—The total exemption from all periodical disorders, particularly the fever and ague, which does not prevail in the Genesee country, on account of the rising grounds and fine situations. 11. The vast advantages derived from the navigable lakes, rivers, and creeks, which intersect and run through every part of this tract of country, affording a water communication from the northern parts of the grant, by the Genesee river one way, or by the Seneca river another way, into the great lake Ontario, and from thence, by Cataraqui, to Quebec, or by the said Seneca river, the Oneida lake, and Wood creek, to Schenectady on the Mohawk river, with only a short land carriage, and from thence to Albany, with a portage of 16 miles; affording also a water communication from almost every township of the southern part of the grant, by means of the different branches of the Tioga river, which joining the Susquehanna, affords an outlet to produce, through an immense extent of country on every hand, to Northumberland, and all the towns upon the great branch of this river, down to Maryland and Virginia; and (with a portage of 12 miles) even to Philadelphia with small boats: and when the improvements are made in the Susquehanna, and the projected canal cut between the Schuylkill and that river, there will be an uninterrupted good water communication for boats of 10 or 15 tons from the interior parts of the Genesee country, all the way to Philadelphia. 12. But above all, the uncommon benefits these lands derive from the vicinity to the thick settled countries in New-York and New-England governments on the one hand, and Northumberland county in Pennsylvania on the other, from all which quarters, from the great advantages that are held out, there must be an overflow of emigrants every year, until these lands are fully settled: which expectation is already com-
pletely

pletely evinced, from the rapid population that has taken place on the east boundaries of the grant upon the Tioga river, and between the Seneca and Cayuga lakes, up to lake Ontario *, where, in the course of three or four years, above 800 families have fixed themselves in this fertile country, most of whom having emigrated from the eastern states of New-England, New-York, and Pennsylvania, have all the advantages which are to be derived from a perfect knowledge of the country, and from that kind of education and local resource, which soon renders the situation of a new settler comfortable and happy, enabling them, at the same time, to assist new comers, who may be less acquainted with the nature of the country.

As a proof the estimation in which the Genesee lands are held by the neighbouring inhabitants, it is only necessary to state the following facts, relative to the population, soil, and produce, &c. which have been extracted from letters and public documents, upon which the utmost reliance can be placed. The information is in these words: "There are already settled in this particular tract, upwards of 1000 † people, in different townships, although two years ago there was not a single person on the whole of the Genesee lands. This winter there is to be a great addition to the number. The return made by the deputy-marshal of New-York, shews not only the precise number of inhabitants that have made settlements in these lands, but also the different townships upon which these settlers have established their farms, and fixed their residence.—Of this return the following is an exact copy:

* These lands are part of the tract of country which was granted to the officers and soldiers of the continental army, for military services. The soil is in general the same as the Genesee pre-emption: but they do not possess equal advantages, in being exempted from the land-tax for 15 years. These lands are not only subject to the usual taxes of the state, as soon as located, but settlements must be made, and houses built, within a limited time, otherwise they revert back to the state.

† In 1793 the inhabitants were six times that number.—EDIT.

462 ACCOUNT OF THE GENESEE TRACT.

A return of the settlers on the pre-emption lands in the county of Ontario, December 1790.

Ranges	Family	Males above 16	Males under 16	Females	Indians	Free Negroes	Slaves	No. of Town- ships	Total Number
In the 1st range,	10	22	11	26	0	0	0	No. 2	59
ditto,	12	24	16	25	0	0	0	7	65
ditto,	3	12	4	9	0	0	0	8	25
ditto,	10	30	13	7	0	0	0	9	50
ditto,	8	33	5	17	0	0	0	10	55
ditto,	2	4	3	4	0	0	0	11	11
In the 2d range,	6	8	7	12	0	0	7	No. 1	34
ditto,	5	9	7	9	0	0	0	2	25
ditto,	1	1	2	6	0	0	0	5	9
ditto,	7	20	9	9	0	0	0	8	38
ditto,	6	12	1	0	0	0	0	10	13
ditto,	2	4	0	0	0	1	0	11	5
In the 3d range,	18	70	8	20	0	0	1	No. 10	99
ditto,	12	32	10	13	0	0	0	11	55
ditto,	4	10	1	3	0	0	0	12	14
In the 4th range,	4	18	2	0	0	0	0	No. 8	20
ditto,	3	7	4	2	0	0	0	9	13
ditto,	10	38	6	20	0	1	0	10	65
ditto,	4	13	2	4	0	0	1	11	20
In the 5th range,	1	2	0	0	0	0	0	No. 9	2
ditto,	7	18	4	4	0	0	0	10	26
ditto,	2	5	3	2	0	0	0	11	10
ditto,	8	15	4	9	0	0	0	12	28
ditto,	4	10	6	4	0	0	0	13	20
5th and 6th,	10	17	12	21	0	0	0	3 and 4	50
In the 6th range,	4	7	5	11	0	0	0	No. 10	23
ditto,	5	26	12	18	0	0	0	11	56
ditto,	1	3	1	4	0	0	0	12	8
In the 7th range,	1	1	3	1	0	0	0	No. 6	5
ditto,	8	16	4	11	1	0	2	9	34
ditto,	8	18	15	26	0	0	0	10	59
West of the Genesee river,	7	10	9	15	0	0	0	0	34
Indian lands oppo- site to No. 5, 8, and 9, in the 7th range	4	8	3	6	0	0	0	0	17
Total,	201	523	192	318	1	2	11	—	1047*

* By advices received in March 1793, the inhabitants had increased to 7000, and settlers were daily going on the lands. In two years hence, the Genesee lands may be estimated to contain 15,000.
—EDIT.

“ Besides

“ Besides these settlers who actually occupy the Genesee tract, there is an establishment of quakers, called the Friends settlement, situated on the eastern ridge of the grant, and at the outlet of the Crooked lake, consisting of 260 persons, who are very industrious, and have already made considerable improvements, having completed an excellent grist and saw mill some time since.—It is expected there will be double that number before a twelvemonth.—To the northward of this settlement, 12 or 15 miles distant, at the north-west corner of the Seneca lake, and about three miles from the boundary of the grant, is the town of Geneva, in the neighbourhood of which there are many settlers, and so on northwardly to lake Ontario, and in different directions for about 30 miles. About 20 miles south from the Friends settlement, near the head of the Seneca lake, is the village of Culvers, and four miles further on is Cathrines town. In the neighbourhood of these villages there is a district of country bounded by the Pennsylvania line on the south, and the heads of the Seneca and Cayuga lakes on the north, and running east from the Genesee southern boundary, to Owega creek, in which there are near 600 families settled. Between the Seneca and Cayuga lakes, and particularly to the eastward of the latter, the country is settling very fast, and so on along the east branch of the Susquehanna, to its source at lake Osega.—It would be difficult to ascertain the present population of the lands adjoining the Genesee grant, but it may be safely concluded, from the progression of settlements for two or three years past, that in the course of a very few years, the whole country to the eastward of the pre-emption line will be well and thickly inhabited *. The New-England settlers, who have already

* An idea of the rapid population may be formed, from a detail of the towns and villages which have been built within the last three years, and which are now in a state of progressive increase, namely,

	Inhabitants.
1. The town of Cannandarqua, at the north end of the lake of that name, lying within the Genesee grant, and intended to be the head town of the county of Ontario	99
2. The Friends settlement, at the outlet of the Crooked lake	260
Carried over	359
3. The	

already fixed themselves on the Genesee tract, have made such favourable reports of the climate and soil, that there are vast numbers of their countrymen preparing to remove thither. Some of these, who at first bought townships of the original grantees, are selling farms to new settlers from two to three dollars an acre, according to quality, situation, and other local advantages.

“ It is in contemplation at present to make a water communication between the Susquehanna and the Skuykill *, which, if effected, will lay open the market of Philadelphia for the reception of the produce of all the Genesee country. And as the soil and climate are supposed to be the best in the world for raising large and productive crops of hemp, flax, indian corn, wheat, rye, barley, oats, buckwheat, peas, beans, and every other species of grain produced in North America, much benefit will be derived to the settlers, by every improvement which can be made in facilitating carriage by inland navigations.

“ At present wheat can be sent from the Genesee settlements to Philadelphia, at one shilling sterling per bushel; but if the water communication be opened between the two rivers, the cost will not exceed four pence.

“ Dry goods can now be sent to these new settlements at about eight shillings sterling per hundred weight, which will probably be reduced to three shillings, when the navigation is completed.

	Brought over	Inhabitants.
3. The town of Geneva, at the north-west corner of the Seneca lake (supposed to be)	- - -	359
4. The village of Culvers, near the head of the Seneca lake (supposed to be)	- - -	100
5. The village of Cathrines town, situated on the head of the Seneca lake, four miles from Culvers	- - -	70
6. New town, a beautiful village on the eastern forks of the Tioga river (supposed)	- - -	30
7. Cheeming town, three miles below New town	- - -	100
		50
		<hr/>
		709
The settlements on the lands surrounding these towns, in a square of about 80 miles	- - -	5931
		<hr/>
	Total	6640

* 1793. This communication is actually begun, and promises the greatest advantage to the Genesee lands.—EDIT.

"No country in the world is better adapted for raising cattle than the Genesee grant. One of the first settlers in that country asserts, that he can every season cut wild grass on his own farm, in the Genesee flats, sufficient to maintain 2000 head of cattle through the winter; and that such hay, with rushes and vegetables which are found above the snow, generally keep the cattle fat without any expence. Hogs can also be reared in the woods at little or no expence to the farmer.

"As the distance from Philadelphia (between which and the Genesee lands a road was to be completed in 1791) is somewhat less by land than 200 miles, there can be no difficulty in driving fat cattle and hogs to that market for sale: as they can transport themselves at a very small expence, and as the demand for provision increases every year, and a liberal price is given for beef and pork, there can be no doubt but the rearing of cattle and hogs, as well as horses, for sale, in the low countries, will soon become a great object of profit to the settlers, as the extensive ranges of meadow ground on the flats, and the blue grass, white clover, and pea vine in the woods, must enable the farmer to feed almost any number he can raise, or find capital to purchase*. In many parts of the tract there is little or no underwood, and excellent pasture in the forests between the trees, in consequence of their being in general of an enormous size, and of the considerable distance between them; thereby affording even a wide range for cattle in the upland country, as well as in the flats and meadows, which have already been represented to be luxuriant beyond description, in a species of coarse grass, very fit for hay. It is said that there are many wild horses upon the tract, which is an additional proof of there being winter food in the flat lands and in the forests."

The farming lands exhibit a variety of different soils adapted to every species of cultivation. The bottoms between the rising grounds being universally rich, and the soil deep in every part of the tract, may be turned successfully to the raising of hemp and flax of the very first quality, also indian corn. On the rising grounds, wheat, rye, oats, barley, buck-wheat, potatoes (which are said to be the best

* 1793. Sheep are also found to prosper on these lands, and the gentlemen who reside there have a vast number, besides hogs, cows, and poultry, &c.—EDIT.

in the world), turnips, and all kinds of vegetables, may be cultivated in the greatest perfection; and considerable advantages may be derived from making ashes from the timber consumed in clearing the grounds.

Indeed the woods of America furnish much resource, independent of agriculture, not only in the article of pot and pearl ashes, and in the sugar extracted from the sap of the maple; but also in furs and skins, from the woods surrounding the farm: and such articles always produce ready money to the new settler, to assist him in his agricultural pursuits. On the Genesee lands, iron ore has also been discovered, which, at a future period, may be productive of great advantage to the proprietors. Already very good ore has been found on one of the townships, and information has been actually received, that iron founderies are soon to be erected on another township, situated upon the property of a Mr. Facit.

“Every part of the tract abounds with springs of excellent water.

“It has also been asserted, that there are salt springs on the grant, and that some of them are now worked by the new settlers, so as to supply the whole with good salt, at a moderate price.

“There is likewise a natural sulphur spring in the tract.

“The present settlers have already got a fine stock of cattle and hogs, and find that they thrive and increase very fast; but as yet, there are few sheep, although, it is supposed, they would succeed well on the hills, after the country is more fully peopled. Several genteel families are preparing to settle on the tract this season, which will greatly facilitate the population of these lands.

“The crops of wheat, indian corn, and other small grains, were very abundant last year; so that the present settlers are in a situation to assist and to supply the wants of new comers.

“The market for grain and provision raised in the Genesee country, will be on the spot for some time to come, and the constant influx of settlers, who may be expected, until the whole of these lands are occupied, will, at least for a time, consume all the surplus produce; afterwards the city of Philadelphia will probably be the best market; and while the country is in the progress of being settled, the hemp and flax raised by the Genesee farmers, and also the ashes
and

and sugar made upon these lands, and the skins and furs procured by hunting, must ultimately go to Philadelphia and New-York; but this will be the business of the merchant, who will receive all these articles from the farmer in return for dry goods, implements of husbandry, salt and rum, and such other articles as the settlers may want."

It is the constant practice in America, for small traders to establish what is called flying stores, for the sale of goods wherever new settlements are made. And already there are actually such merchants established in the Genesee country, at the county town of Canandagua, at the north end of the lake of that name, where all kind of produce is bought and sold by the merchants already settled there.

Wheat is, at present, 1791, one dollar per bushel (4s. 6d. sterling); indian corn, 2s. 6d. ditto; salt, from the Onondago works, 60 miles east of the grant, is half a dollar a bushel; in time it will be cheaper.

At a future period, when population shall have rendered various markets necessary, the heavy articles raised on the northern part of the grant, will probably be transported to Quebec, by the way of lake Ontario, Catoroqui, and Montreal; and such articles as will bear land-carriage, by the way of the Mohawk river and New-York. As the crops are extremely uncertain in Canada, it is by no means improbable that this country must often be resorted to in order to supply the Canadians with bread.

It has been already mentioned, that the climate of this country is reckoned more mild in winter, and less sultry in the summer, than the same latitudes nearer the atlantic ocean; and as agriculture advances, and the country becomes more open, the climate will improve. At present it is extremely healthy, and none of those periodical disorders are known among the settlers which prevail in those parts of America which are nearer the sea, such as intermitting fevers, agues, and bilious complaints.

The severe weather generally sets in about the beginning of December, with sharp cold, black frosts, and falls of snow. About christmas the grounds are covered with snow, which continues about two months, or till the first week in March, during which interval there is a clear serene sky, with fine weather. It is then that the farmer transports his corn and other produce to a market, or to the granaries and stores at the landing-places, to be in readiness when the weather opens for water communication. This transportation

tion is managed with great ease by means of flays over the snow, where one horse will perform more than four times the number in those latitudes in North America, where snows do not lie in the winter.

This period, when the snows are upon the ground, is also the season of festivity with the american farmers, as it affords an easy and expeditious, as well as a cheap mode of travelling, and of paying visits to one another, and in holding a friendly intercourse with their relations at a distance, in which they appear to have more real enjoyment than the same class of people in any other country in the world.

These snows are therefore reckoned extremely beneficial; for while they meliorate the ground, and assist the farmer in removing his heavy timber and produce, at an easy expence, they contribute much to his comfort and happiness, in the intercourse with his friends and neighbours, in the facility of travelling from one place to another, and in the fine, serene, and clear atmosphere which is experienced during the whole of the winter.

The snows are generally off the ground about the middle of March, when the spring weather commences, by mild showers of rain, which continue occasionally during the whole of the months of April and May, gradually becoming warmer and warmer; which occasions a quick vegetation. During this season the country is delightfully beautiful, with the whole fruit-trees in bloom, as well as every shrub or vine which bears any wild fruit in the woods.

In June the weather begins to grow warm. In July and August it is occasionally sultry, with frequent thunder-showers, which are succeeded immediately by fine serene weather, without the intervention of any settled rains. During this season the flies are very troublesome; but this will be less and less the case as the country is cleared.

The months of September, October, and November, are delightfully pleasant. The mornings and evenings are sometimes foggy; but the middle part of the day is clear and serene, without any rains to distress the farmer in saving his different crops, or to prevent him from reaping the full extent of the fruits of his industry.

The great variety of fruits and game also, at this season of the year, adds not a little to the pleasure and comfort of the settlers. But still these comforts are not to be acquired without industry and labour.

The Genesee country making a part of the new county of Ontario, in the state of New-York, is consequently under the government of the congress of the United States, which government is perfectly free. Every inhabitant is eligible to be chosen a member of the legislative body, or to be appointed a public magistrate. Religious opinions exclude no man from any public situation in the government, and every sectary or society are at perfect liberty to exercise their own mode of worship, under the protection of the same laws which give the most perfect security to their property.

The native Indians have wholly retired from the Genesee country*. In this particular quarter of America, these tribes are now perfectly tranquillized, and disposed to cultivate the arts of peace and civilization. After ceding any tract of country, for a valuable consideration paid, and after a treaty signed for that purpose, as in the present case, no instance occurs of these Indians ever settling upon the same lands. They are remarkable for keeping faith in this respect. Indeed they always retire from the settled countries, on account of the scarcity of game, upon which they principally depend for subsistence.

But above all, the extended society of white inhabitants, amounting to upwards of 6000 persons†, already established in this new country, half of whom may be presumed able to bear arms, gives the most perfect security to the settlers, and the more especially as their numbers will daily increase.

With this increase will also be introduced, in a greater degree every year, public schools and other seminaries of learning for the education of youth of both sexes, as well as places of public worship. Some churches and chapels are already built in this new country; and the latest advices state, that the rev. Mr. Ross was to establish an academy, for the education of youth, in the county town of Cannandaraqua, in the Genesee tract, in the course of the spring or summer 1791.

To these improvements in civil society are added, courts of justice, and public magistrates; and judges for the new country of Ontario; where court-houses, and other public buildings, are either erected or in progress, so as to extend

* The Genesee lands are nearly 800 miles from the Kentucky lands, and are by that means distantly seated from the present war with the Indians(1793).—EDIT.

† This number is almost doubled, and last year upwards of 500 Germans went from Hamburgh, &c. for the purpose of improving the lands, and were to be embodied as militia.—EDIT.

to the inhabitants the same civil and political privileges, in well-executed laws, and in sending representatives to congress and to the assembly, which are enjoyed by other citizens of America.

IN addition to what has been already said concerning the maple sugar, it may here be remarked that no cultivation is necessary; that no contingency, such as hurricanes or bad seasons, can disturb the process; that neither the heavy expence of mills, engines, machinery, or a system of planting, which occupies negroes for the whole of the season, is necessary at all to make the maple sugar:—the process occupies six weeks, from the middle of February to the end of March; and the whole of the buildings, and other articles necessary for carrying it on, are to be obtained at so trifling an expence, as to be within the reach of any person of common industry, whose conduct in life can entitle him to the most moderate credit.

Upon the scale of four men, and for the purpose of making 40 cwt. of sugar, all the implements that are necessary, are these following:

	Expence.
1. Sixteen kettles of 15 gallons each, to boil the sap, with pot racks for each kettle	£ 16 0 0
2. Two iron ladles, with bowls of a gallon, to shift the sap from one kettle to another	1 5 0
3. Four screw augers, $\frac{1}{2}$ to $\frac{3}{4}$ inch, for boring the trees	0 6 0
4. Ten buckets with covers, of three gallons each, for collecting the sap, and yokes for carrying two between the shoulders	2 10 0
5. Sixteen hundred wooden troughs, of three gallons each, to receive the sap from the trees, threepence each	20 0 0
N. B. One man, acquainted with the business, may cut down wood and make 20 troughs in a day (or eight days work of ten men).	
6. Six wooden troughs, dug out from large timber, like a canoe, for holding the sap	4 10 0

Carried over £ 44 11 0

Brought over £ 44 11 0

In a new country, where cisterns cannot be had, such large troughs, made of well-seasoned timber (of which there is vast abundance, of an uncommon size, wherever the maple tree grows), answer the purpose very well.

Upon the top of this cistern there should be a linen strainer fixed, through which the sap brought in the buckets should pass.

7. A shed and walls for the fire-places, to be erected, of stone or clay (of both which there are plenty in the country), of sufficient length for the 16 boilers; which shed should be covered so as to keep out the weather	10	10	0
8. Sugar moulds may be made of seasoned boards, until earthen ones can be procured	1	10	0
9. Pickers (so called by the sugar-bakers), to run up the moulds, may be also made of hard wood found in the country	0	9	0
10. Spouts for the trees, 3,200 in all	6	10	0
11. Wooden gutters and narrow troughs for facilitating labour	1	10	0

Total cost £ 65 0 0

These are the whole implements that are required for a sugar-work in America, all which, it is to be observed, excepting the 16 kettles, the two iron ladles, and the four augers, are prepared by the workmen themselves from the resources they find in the country. If, however, a large work were to be established, the expence would probably be less, in proportion, than upon the scale of four men engaged in this pursuit.

SEASON FOR TAPPING.—By trials in February each year, it will be discovered when the maple tree ought to be bored, for the purpose of extracting the syrup or sap; as in that month, sometimes earlier and sometimes later, it begins to yield a sufficient quantity for commencing business.

TAPPING OR BORING.—Four hundred trees, each tree bored with two holes on the south side, and also with two holes on the north side of the tree in the early part of the season, with screw augers from half to one inch, according to the size of the tree. And towards the middle of the season a like number of trees to be bored in the same manner.

manner. This upon the scale of four hands : eight hundred trees in all, to be tapped.

The sap of the second tapping will be found richer and more productive than the first.

At first, the auger should go no deeper into the tree than $\frac{3}{4}$ of an inch, and to be deepened afterwards to the extent of two inches and a half, as the manner of the sap's running may render necessary —The hole to be made in a slanting or descending position, that the sap may run freely in frosty weather.—In these holes there should be fixed spouts to project from the tree 12 inches, but not to enter the orifice more than half an inch. Elder wood spouts to be prepared in the season.

PRESERVING THE SAP OR SYRUP.—In the early part of the season, the sap will keep during frost, but as the spring advances, it will be necessary to boil it the day after it is drawn from the tree, to prevent souring and fermentation.

BOILING THE SAP.—A smart fire should be kept up while the sap is boiling, and a table spoonful of slacked lime put into each 15 gallon kettle, while the sap is warming, and before it boils, to raise the scum, and give the sugar a grain.

When the scum rises, it should be skimmed off. When the liquor is reduced one half, discharge it into the one half of the kettles, continuing the process till the whole is placed in one kettle, filling up the empty ones as soon as possible with fresh sap.

When the liquor in the last or aggregate kettle becomes a syrup, it should be strained through a woollen cloth, before it becomes too thick.

When thus cleaned, it should stand in buckets or other proper vessels 12 hours, that the whole sediment may fall to the bottom, and the clarified syrup to be poured off into a kettle or boiler. The sediment to be boiled up again with fresh sap.

In graining, cleaning, and whiteing the sugar, the method of the sugar-bakers to be used.

In graining the sugar, pour the syrup into a boiler, after having stood 12 hours, and place it over a smart fire of charcoal, so as to prevent any flame, using butter or hog's lard to keep down the sap when it rises to the top. This should be carefully attended to, when the sugar is graining.

The mature state of the boiling is known by taking a little

little of the syrup from the boiling-stick, and trying if it ropes or draws into a thread between the finger and thumb; then it should be put into a tub or cooler, and stirred incessantly until the grain can be felt, when it is in a fit state to be poured into the moulds.

MOLASSES AND VINEGAR.—When the trees of the second tapping become poor, which may be about the 31st of March, or perhaps not till the 10th of April, the number of fresh-tapped trees will yield a sap, of which may be made good molasses, and excellent vinegar.

Rum has also been made of an exceeding good quality from the rich sap.

GENERAL OBSERVATIONS.

In maple plantations, it may be useful to cut down all other timber which grow intermixed with the sugar-trees, and also those of that species which are not thriving.

It is not yet ascertained from experience, how long a tree may be tapped with success. —But there are instances among old settlers on the North river of trees being tapped for 50 years, and still continue to yield their sap in season, the same as new trees; and it is even asserted by persons of some experience, that these trees become more valuable, yielding a sap of a richer quality the more they are tapped.

How far a careful cultivation in plantations may still increase the quantity, and enrich the juices drawn from this valuable tree, remains to be ascertained by experiment.

The presumption, however, is in favour of still greater advantages from cultivation and art.

THOUGHTS ON EMIGRATION.

IF any country in Europe has more people than can be comfortably subsisted in it, some of those who are incommoded may be induced to emigrate. As long as the new situation shall be found to be preferable to the old, emigration may possibly continue; but when many of those, who in the old countries in Europe interfered with others in the same rank in the competition (for farms, shops, business, and other means of subsistence), are gradually withdrawn to another country, the inconvenience of that competition ceases. The numbers remaining no longer half starve each other.

other.—They find they can now subsist comfortably; and though perhaps not quite so well as those who left them, yet the inbred attachment to a native country is sufficient to overbalance a moderate difference; and thus the emigration ceases naturally of itself, without the necessity of any legislative restrictions, which are neither necessary nor politic.

The waters of the ocean may move in currents from one quarter of the globe to another, as they happen in some places to be accumulated, and in others diminished; but no law beyond the law of gravity, is necessary to prevent their abandoning any coast entirely. Thus the different degrees of happiness of different countries and situations find, or rather make, their level by the flowing of people from one to another; and where that level is once found, the removals cease. Add to this, that even a real deficiency of people in any country, occasioned by a wasting war or pestilence, is speedily supplied by earlier, and of course more prolific marriages, encouraged by the greater facility of obtaining the means of subsistence; so that a country half depopulated would soon be repeopled, till the means of subsistence were equalled by the population. All increase beyond that point must perish, or flow off into more favourable situations. Such overflowings there have been of mankind in all ages, or we should not now have had thirteen states in America, containing near four millions of people; but to apprehend absolute depopulation from that cause, is to suppose that, by the ebbing and flowing of a great river, in time its waters would be exhausted.

That great national advantages may be acquired to the old countries in Europe, from whence people emigrate, has been shewn in one point of view: but if such overflowing of people should go to another country where land is easily acquired, and population encouraged by early marriages, there is another point of view in which the parent state may be benefited by the removal of the people it can spare. This benefit will arise from predilections for the manufactures of their native country: hence an extended consumption of the labour of the people who are engaged in manufactures in the old countries, from whence these people emigrated; and in so far as these people multiply in a greater degree than they could have done in Europe, and in so far also as they, by means of cheap land and agricultural pursuits, can consume more of the manufactures than they
could

could have done in their own country, from being richer and better able to buy them; in the same proportion are these people rendered more useful to the state, than if no emigration had taken place, seeing that their labour is rendered productive abroad, which was not the case in their own country.

The new settlers in America finding plenty of subsistence, and land easily acquired whereon to seat their children, seldom postpone marriage through fear of poverty. This natural increase is therefore in proportion far beyond what it would have been had they remained in Europe.

New farms are daily everywhere forming in those immense forests, new towns and villages rising: hence a growing demand for the manufactures of their mother-country, to the greater employment of the manufacturer, and enrichment of the merchant. By this natural augmentation of the demand for manufactures, the strength of an empire is increased, and its members are multiplied.

Was this country already attached to Great Britain by the tie of consanguinity, a similarity of language, religion, and natural affection secured by these means, and the mutual advantages which would arise from a treaty of commercial alliance; it would afford an additional strength to the british empire, far superior, and more to be depended on, than any advantage that ever could have been acquired by the most successful conquest.

These national advantages would certainly more than equiponderate with any ideal inconveniences that might be suffered by the emigration of superfluous cottagers, who would remain in poverty and misery in Europe, useless to themselves, and a burden to their country. By removing to enjoy plenty and happiness, in cultivating the vast unoccupied tracts of fertile land in North America, they would not only ease their own country of its supernumerary inhabitants, but, as they advance in opulence, consume its manufactures.

The overflowings of Germany and France are now emigrating to America; and it might, in the course of a few years, be matter of serious regret if Britons and Irishmen, who have a much better right, did not endeavour to cement, by this intimate connexion and a natural alliance, countries which are by nature designed for the mutual aggrandizement and support of each other.

However great the advantages are which result to the settlers

settlers of new lands in chosen good situations in America, it is by no means insinuated or suggested that the comforts or benefits to be derived from such settlements are to be obtained without labour and industry. It is sufficient to say, that in no country in Europe does labour and industry produce to the farmer so ample and so certain a return, where good judgment and perseverance are exercised. And perhaps the best way to elucidate the nature of the employment of the first settlers in such a country as has been already described, is, by a detail of the routine of his occupation as a farmer and planter in the American woods for the three first years, which will be nearly as follows:

FIRST YEAR.

The farmer or planter is supposed to be a man of small property, young, active, and originally bred in this line; such a person setting himself down in the Genesee country, may enter upon the business of life, with an assurance of being soon in easy circumstances and independent, if he either possesses money or credit to stock his little farm, as follows:

- | | |
|--|----------|
| 1. With one breeding mare, one milch cow with calf, two oxen or steers, two sows with pig, a few turkies, geese, ducks, and dung-hill fowls; in all sterling | £ 30 0 0 |
| 2. Farming implements: Two axes; two grubbing hoes, and two common hoes; a plow and harrow, with their appendages; a grindstone, ditto; a cross-cut saw, ditto; other farming implements; with two guns, powder and shot; and fishing tackle | 15 0 0 |
| 3. Household furniture | 15 0 0 |
| 4. Corn, flour, and other provisions for six months | 10 0 0 |

Total in sterling, about £ 70 0 0

With this stock of cattle, implements of husbandry, and other conveniences, the settler chooses his spot of ground, and commences his operations in the month of March, having previously cut down and prepared a small quantity of timber.

In March, he builds himself a log house or cabin, which, with the assistance of his friends and neighbours, is generally completed in one day. He grubs three acres of his best

best ground for indian corn, &c. and occasionally employs himself in shooting game and i f i shing, for subsistence through the year.

April—he plows the land which he has grubbed, and cuts rail timber for fencing it.

May—he plants his indian corn (one peck to three acres); and between the rows, pumpkins, cucumbers, and squashes are planted. He also plants half an acre of potatoes; and he likewise makes a small garden for peas, beans, collards, and other vegetables.

June—he weeds and hills his indian corn and potatoes; and he proceeds to clear land for sowing wheat in the fall.

July—he continues to weed and hill his indian corn, and to clear more land for wheat; he also clears half an acre for turnips.

August—he sows his turnips, tops his indian corn, and blades it for the cattle—Continues to clear and prepare his wheat land.

September—he continues clearing his wheat land, and begins to plough it up.

October—he sows his wheat (one bushel to an acre), harrows it in; also sows wheat between the rows of his indian corn. Kills game for the family.

November—he fences his wheat land, which should extend to ten acres, if he is industrious.

December—he takes in his indian corn, potatoes, and turnips, and builds a crib for holding his corn, and a pit in the ground for securing the potatoes and turnips against the frost. Builds a shed for shelter for the cattle, also a small house for the hogs.

January—he cuts and splits timber for fence rails; and he also cuts logs for enlarging his house, which he hauls upon the snow.

February—he continues cutting timber for fence rails, and deadening trees on such land as he intends to prepare for cultivation during the ensuing season.

Having thus detailed the progressive employment of the american farmer for the first twelve months after he settles in a new country, it may be proper to state the probable produce of his farm, which may be estimated as follows:

1. Ninety bushels of indian corn;
2. One hundred bushels of potatoes;
3. Two hundred bushels of turnips;
4. One hundred and fifty bushels of ashes;
5. One colt;
6. One calf;
7. Eight or ten pigs;
8. Three or four dozen

of

of turkies, geese, and fowls; 9. Vegetables for family use, such as squashes, pumpkins, melons, cucumbers, garden stuffs; 10. Game and fish equal to half the subsistence of his family, such as deers, elk, wild turkies, wild geese, ducks, pigeons, pheasants, &c. &c. also salmon, salmon-trout, cat-fish, chub, &c. 11. Furs and peltry from deer, elk, moose-deer, minx, otter, &c.

SECOND YEAR.

March—the farmer must now, in consequence of the additional quantity of land, be assisted with one labourer. He clears more land for corn, to the extent of six acres, and prepares railing for fencing it.

April—he plows the land, and completes the fencing.

May—he plants his corn land, with pumpkins, squashes, and cucumbers between the rows. He clears more ground for potatoes. He now extends his garden ground, by converting a part of his last year's potatoe land into that use. He plants all kinds of vegetables, peas, beans, &c. He sows hemp and flax on the remainder of his potatoe ground and turnip ground cleared the former year.

June—he plants his potatoes on new ground, grubbed for the purpose, to the extent of an acre. He clears more land for wheat.

July—he reaps his wheat (about 13 acres), with a cradle scythe; after he has reaped one acre, he carries the grain off; plows the ground immediately, and sows buck-wheat on that one acre (half a bushel is sufficient for an acre). He then proceeds to cut the rest of his grain, and brings it to his barn-yard, and stacks it up.

August—pulls his flax early this month, and preserves the seed. Prepares half an acre of new ground for turnips, and sows them. Tops his indian corn, and blades it for the cattle. Continues to clear more ground for wheat, and to prepare fence railing. Pulls his hemp towards the end of the month.

September—begins to plow his wheat ground, which is generally a boy's work. Spreads out his flax, after being watered. Spreads out his hemp also in the weather, to remain till winter.

October—sows his wheat on his new ground; also sows wheat between the rows of his indian corn. Cuts his buck-wheat; threshes it in the field; takes home the grain, and stores it in the loft of his house.

November—

November—fences his wheat land about 10 acres more. Also sows rye on ten of the acres which formerly bore wheat; the other three he reserves to sow with oats in April.

December—takes in and secures his indian corn, turnips, and potatoes, early in the month; and cuts down rail timber.

January—begins to cut logs to carry over the snow to the nearest saw-mill, for boards to assist in building a better house, and also for planks for doors, and for building a proper barn and threshing-floor. Beats out his hemp and flax with a brake.

February—continues to dead more trees, and to clear more land for indian corn. Begins, for the first time this month, to draw the sap from the sugar-tree, and to make as much sugar, molasses, and vinegar, as will serve for the family use.

Second year's crop ought to be nearly as follows:

Indian corn	180 bushels	Hemp, about	150 lb.
Wheat	260 ditto	Flax, ditto	100 lb.
Buck wheat	30 ditto	Ashes, ditto	200 bushels
Turnips	200 ditto	Skins and furs for sale.	
Potatoes	200 ditto		

N. B. The wheat is carried to the nearest grist-mill, and there ground into flour for family use, and for sale.

Live stock increased, one mare, two colts, one cow, two calves, two steers, 20 hogs and shoats, poultry in abundance.

The OPERATIONS of the AMERICAN FARMER for the THIRD YEAR.

He is then assisted with two stout hands, on account of the additional quantity of lands which are by this time cleared for cultivation; and his crops will now afford him the means of paying wages. He purchases an additional horse and yoke of oxen.

March—he continues, with the assistance of his wife and domestics, to draw off the sap of the sugar-tree, and to boil it up for sugar, molasses, and vinegar. This month, for the first time, he turns his attention to meadow ground. He chooses for this purpose his lowest land, which he prepares and sows with timothy grass, which is deemed superior to clover for new lands in America.

April—he sows a little spring wheat on new land. He sows oats on the three acres formerly reserved. He sows spring barley on the six acres in corn last year.

May, June, July—he proceeds in the same routine as the former year, in clearing land, planting corn and potatoes,

toes, sowing hemp and flax, pumpkins, squashes, cucumbers, and melons. Improves and extends the garden ground, and sows and plants all kinds of vegetables. Sows buck-wheat in July. Also finishes his harvest of wheat, oats, and barley, and stacks it up in his barn-yard.

August—he clears and prepares ground for an additional quantity of turnips, also for wheat. Tops his indian corn, pulls his hemp, waters his flax, and sows his flax seed. He also sows his meadow ground with turnips, along with the timothy grass.

September, October—he proceeds in the same routine of agricultural pursuits as the former years, but on a larger scale.

November—the necessary parts of the improvement of the farm being then pretty well advanced, the farmer now thinks of planting orchards. For this purpose he appropriates the ground nearest his house, which had been cleared and cultivated the first year, to the following purposes: 1st, For an apple orchard, three acres; 2d, for a peach orchard, 1 acre; 3d, for cherry-trees, plum and pear-trees, &c. 1 acre; all of which bear fruit in four years. Between the rows of trees in the orchard may be raised every year, indian corn, wheat, oats, &c. At the end of the third year the aggregate produce of the farm should be nearly as follows:

	Acres.	Bushels.	s. d.	Sterling.
1. Indian corn	10	300	2 6	£37 10 0
2. Wheat	20	400	4 0	80 0 0
3. Spring wheat	3	60	3 6	10 10 0
4. Buck wheat	5	100	1 9	8 15 0
5. Oats	3	120	1 6	9 0 0
6. Barley	3	120	1 9	10 10 9
7. Potatoes	1	200	1 6	15 0 0
8. Turnips	3	900	0 5	17 15 0
9. Hemp	1	1000 lb.	0 2	8 6 8
10. Flax	1	500 lb.	0 5	8 6 8
11. Garden	1	{ Vegetables, 10 bush. of peas, also flax seed }		10 0 0
<hr/>				
12. Meadow ground	5 ¹ 4	for hay next year.		
<hr/>				
Total	55 acres.			
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13. Ashes	-	500 bush.	0 3	6 5 0
14. Hogs for sale	-	10	10 0	5 0 0
				<hr/>
				£226 18 4
				<hr/>
				Live

Live stock increased, viz. one horse, purchased this year ; one mare ; three colts ; two cows ; two calves ; two yoke of oxen, or four steers ; twenty hogs and shoats, &c ; turkeys, geese, ducks, and fowls, in abundance, for family use.

This is the routine of farming which a man of small property, or who went upon credit, would consider it as most prudent to pursue : but to settlers of substance, who could afford to hire servants, and purchase a stock of cattle and horses, the plan would be different.—1. A good house of framed timber, brick, or stone, would be built at once ; 2. a barn, stable, and all other conveniences ; 3. an ash-work, with sheds, for making pot and pearl ashes ; 4. sheds, and proper apparatus, for making sugar in the season ; 5. a corn-mill, and also a saw-mill, upon some stream near the house, the cost of both would not exceed 250l. sterling ; 6. meadow ground would be taken in the first year, for hay for the cattle ; 7. a large tract of ground would be cleared for corn, wheat, oats, barley, rye, buck-wheat, potatoes, turnips, hemp, flax, &c. ; 8. a garden and orchard would also be completed the first year ; 9. a seine, or fishing net, would be procured for providing the family with fish ; and other measures would be pursued for a constant supply of game of all kinds.

No. III.

Remarks for the information of those who wish to become settlers in America. The production of a very celebrated american statesman and philosopher*, written a short time previous to his decease.

THE governments in America give every assistance to strangers that can be desired from protection, good laws, and perfect liberty.—Strangers are welcome, because there is room enough for them all ; and therefore the old inhabitants are not jealous of them, the laws protect them sufficiently, so that they have no need of the patronage of great men ; and every one will enjoy, in security, the profits of his own industry : but if he does not bring a

* Dr. Franklin.

fortune with him, he must work and be industrious to live. One or two years residence give him all the rights of a citizen ; but the government does not hire people to become settlers.

Land being cheap in that country, from the vast tracts still void of inhabitants, so that the property of an hundred acres of very fertile soil may be obtained at an easy rate ; hearty young men, who understand the husbandry of corn and cattle, which is nearly the same as in Europe, may easily establish themselves there. A little money saved of the good wages they receive there, while they work for others, enables them, in a few years, to buy land and begin their plantation, in which they are assisted by the good will of their neighbours adding some credit. Multitudes of poor people from England, Ireland, Scotland, and Germany, have, by this means, in a few years, become wealthy farmers ; who, in their own countries, where all the lands are fully occupied, and the wages of labour low, could never have emerged from their low condition wherein they were born.

From the salubrity of the air, the healthiness of the climate, the plenty of good provisions, and the encouragement to early marriages, by the certainty of subsistence in cultivating the earth, the increase of inhabitants by natural generation is very rapid in America, and becomes still more so by the accession of strangers :—hence there is a continual demand for more artisans of all the necessary and useful kinds, to supply those cultivators of the earth with houses, and with furniture, and with utensils of the grosser sorts, which cannot so well be brought from Europe. Tolerable good workmen in any of these mechanic arts, are sure to find employ, and to be well paid for their work ; there being no restraints preventing strangers from exercising any art they understand, nor any permission necessary. If they are poor, they begin first as servants or journeymen ; and if they are sober, industrious, and frugal, they soon become masters, establish themselves in business, raise families, and become respectable citizens.

Lastly, persons of moderate fortunes and capitals, who having a number of children to provide for, are desirous of bringing them up to industry, and to secure estates for their posterity, have opportunities of doing it in America, which Europe does not afford. There they may be taught useful and profitable mechanic arts, and may follow the same without incurring reproach on that account ; but, on the contrary,

contrary, acquiring respect by such pursuits and abilities. The small capitals laid out in lands, which daily become more valuable by the increase of people, afford a solid prospect of ample fortunes thereafter for their children. Instances have been often known of large tracts of land being bought on what was then the frontiers of Pennsylvania, 20 years after, selling at a profit of many hundred per cent, without any improvement whatever made on them.

The establishment of manufactures has rarely succeeded in America, the country not being yet so ripe as to encourage private persons to set them up; labour being generally too dear there, and hands difficult to be kept together, every one desiring to become a master, and the cheapness of land inclining many to leave trades for agriculture. Things that are bulky, and of so small value as not well to bear the expence of freight, may often be made cheaper in the country than they can be imported; and the manufacture of such things will be profitable whenever there is a sufficient demand. The farmers in America produce, indeed, a good deal of wool and flax, and none is exported, it is all worked up; but it is in the way of domestic manufacture, for the use of the family. The buying up quantities of wool and flax, with the design to employ spinners, weavers, &c. and to form great establishments, producing quantities of linen and woollen goods for sale, has been several times attempted in different provinces: but these projects have generally failed, goods of equal value being imported cheaper; for these unnatural operations must be supported by mutual prohibitions, or high duties on the importation of goods, by which means the manufacturers are enabled to tax the home consumer by greater prices. Therefore the government of America does nothing to encourage such projects; the people are by this means not imposed on either by the merchant or mechanic: if the merchant demands too much profit on imported shoes, they buy of the shoemaker; and if he asks too high a price, they take them of the merchant; thus the two professions are checks to each other. The shoemaker however has, on the whole, a considerable profit upon his labour in America, beyond what he had in Europe, as he can add to his price a sum nearly equal to all the expences of freight and commission, risque, or insurance, &c. necessarily charged by the merchant, and the case is the same with the workmen in every other mechanic art. Hence it is that artisans live better and more easily in America than in Europe; and

such as are good economists, make a comfortable provision for age, and for their children. Such may therefore remove with advantage to America.

In the old long-settled countries of Europe, all arts, trades, professions, farms, &c. are so full, that it is difficult for a poor man, who has children, to place them where they may gain or learn to gain a decent livelihood. The artisans who fear creating future rivals in business, refuse to take apprentices, but upon conditions of money, maintenance, and the like, which the parents are unable to comply with. Hence the youth are brought up in ignorance of every gainful art, and are obliged to become soldiers, or servants, or thieves, for a subsistence. In America, the rapid increase of inhabitants takes away that fear of rivalry; and artisans willingly receive apprentices, from the hope of profit by their labour during the remainder of the time stipulated after they shall be instructed. Hence it is easy for poor families to get their children instructed; for the artisans are so desirous of apprentices, that many of them will even give money to the parents, to have boys from ten to fifteen years of age bound apprentices to them till the age of twenty-one; and many poor parents have, by that means, on their arrival in the country, raised money enough to buy land sufficient to establish themselves, and to subsist the rest of their family by agriculture. These contracts for apprentices are made before a magistrate, who regulates the agreement according to reason and justice; and having in view the formation of a future useful citizen, obliges the master to engage, by a written indenture, not only that during the time of service stipulated, the apprentice shall be duly provided with meat, drink, apparel, washing, and lodging, and at its expiration with a complete new suit of clothes, but also that he shall be taught to read, write, and cast accounts, and that he shall be well instructed in the art or profession of his master, by which he may afterwards gain a livelihood, and be able in his turn to raise a family. A copy of this indenture is given the apprentice, or his friends, and the magistrate keeps a record of it, to which recourse may be had in case of failure, by the master, in any point of performance.

This desire among masters to have more hands employed in working for them, induces them to pay the passages of young persons of both sexes, who on their arrival agree to serve them two, three, or four years; those who have already learnt a trade, agreeing for a shorter term, in proportion

portion to their skill, and the consequent immediate value of their service; and those who have none, agreeing for a longer term, in consideration of being taught an art their poverty would not permit them to acquire in their own country.

The almost general mediocrity of fortune that prevails in America, obliging its people to follow some business for subsistence, those vices that arise generally from idleness, are in a great measure prevented. Industry and constant employment are great preservations of the morals and virtue of a nation. Hence bad examples to youth are more rare in America, which must be a comfortable consideration to parents. To this may be truly added, that serious religion, under its various denominations, is not only tolerated, but respected and practised. Atheism is unknown there, infidelity rare and secret; so that persons may live to a great age in that country, without having their piety shocked by meeting either an atheist or an infidel. And the Divine Being seems to have manifested his approbation of the mutual forbearance and kindness with which the different sects treat each other, by the remarkable prosperity with which he has been pleased to favour the whole country.

No. IV.

A topographical description of Virginia, Pennsylvania, Maryland, and North-Carolina; comprehending the rivers Ohio, Kanhaway, Sioto, Cherokee, Wabath, Illinois, Mississippi, &c. the climate, soil, and produce, whether animal, vegetable, or mineral; the mountains, creeks, roads, distances, latitudes, &c. of those countries. By Thomas Hutchins, captain in the 60th regiment of foot. With a plan of the rapids of the Ohio, a plan of the several villages in the Illinois country, a table of the distances between fort Pitt and the mouth of the Ohio: and an appendix, containing Mr. Patrick Kennedy's journal up the Illinois river; and a correct list of the different nations and tribes of Indians, with the number of fighting men, &c. [1778.]

THE present topographical description of the parts abovementioned, comprehends almost the whole of the country lying between the 34th and 44th degrees of latitude, and the 79th and 93d degrees

degrees of longitude, and describes an extent of territory of about 850 miles in length, and 700 miles in breadth; and one which, for healthiness, fertility of soil, and variety of productions, is not perhaps surpassed by any on the habitable globe.

Those parts of the country lying westward of the Allegany mountain, and upon the rivers Ohio and Mississippi, and upon most of the other rivers and lakes here described, were done from my own surveys, and corrected by my own observations and latitudes, made at different periods preceding, and during all the campaigns of the last war, in several of which I acted as an engineer, and since in many reconnoitring tours, which I made through various parts of the country, between the years 1764 and 1775.

I have compared my own observations and surveys, respecting the lakes, with those made by captain Brehm, of the 60th regiment of foot (who was for many years employed as an engineer in North America), and I find that they correspond with more exactness than surveys usually do, which are made by different persons at different times; and I am happy in this opportunity of expressing my obligations to this gentleman, for the cheerfulness with which he furnished me with his surveys and remarks.

It is fit also, that I should take notice that, in the account which I have given of several of the branches of the Ohio and Allegany rivers, I have adopted the words of the late ingenious Mr. Lewis Evans, as I found he had properly described them in the analysis to his map of the middle colonies.—And as to that portion which represents the country lying on the eastern side of the Allegany mountain I take the liberty of informing my readers, that my reason for inserting it, was to shew the several communications that are now made, and others which may be hereafter easily made, between the navigable branches of the Ohio and Allegany rivers, and the rivers in Virginia and Pennsylvania, which fall into the atlantic ocean, from the west and north-west.

London, Nov. 1, 1778.

THE lands lying on a westerly line, between the Laurel mountain and the Allegany river, and thence northerly up that river for 150 miles, on both sides of the same, though not much broken with high mountains, are not of the same excellent quality with the lands to the southward of fort Pitt. They consist chiefly of white oak and chestnut ridges; and in many places of poor pitch pines, interspersed with tracts of good land and low meadow grounds.

The

The lands comprehended between the river Ohio at fort Pitt, and the Laurel mountain, and thence continuing the same breadth from fort Pitt to the great Kanhaway river, may, according to my own observations, and those of the late Mr. Gift, of Virginia, be generally and justly described as follows.

The vallies adjoining to the branches or springs of the middle forks of Youghiogeny, are narrow towards its source; but there is a considerable quantity of good farming grounds on the hills, near the largest branch of that river. The lands within a small distance of the Laurel mountain (through which the Youghiogeny runs) are in many places broken and stony, but rich and well timbered, and in some places, and particularly on Laurel creek, they are rocky and mountainous.

From the Laurel mountain to Monongahela, the first seven miles are good level farming grounds, with fine meadows; the timber white oak, chefnut, hiccory, &c. The same kind of land continues southerly 12 miles to the upper branches, or forks, of this river, and about 15 miles northerly to the place where the Youghiogeny falls into the Monongahela. The lands, for about 18 miles in the same course of the last-mentioned river, on each side of it, though hilly, are rich and well timbered. The trees are walnut, locust, chefnut, poplar, and sugar, or sweet maple. The low lands, near the river, are about a mile, and in several places two miles wide: for a considerable way down the river, on the eastern side of it, the intervals are extremely rich, and about a mile wide. The uplands for about 12 miles easterly, are uncommonly fertile and well timbered; the low lands, on the western side, are narrow; but the uplands, on the eastern side of the river, both up and down, are excellent, and covered with sugar-trees, &c.

Such parts of the country which lie on some of the branches of the Monongahela, and across the heads of several rivers that run into the Ohio, though in general hilly, are exceedingly fruitful and well watered. The timber is walnut, chefnut, ash, oak, sugar-trees, &c.; and the interval, or meadow lands, are from 250 yards to a quarter of a mile wide.

The lands lying nearly in a north-westerly direction from the great Kanhaway river to the Ohio, and thence north-easterly, and also upon Le Tort's creek, little Kanhaway river, Buffalo, Fishing, Weeling, and the two upper, and

two lower, and several other very considerable creeks (or what in Europe would be called large rivers), and thence east and south-east to the river Monongahela, are, in point of quality, as follows.

The borders, or meadow lands, are a mile, and in some places near two miles wide; and the uplands are in common of a most fertile soil, capable of abundantly producing wheat, hemp, flax, &c.

The lands which lie upon the Ohio, at the mouths of, and between the above creeks, also consist of rich intervals, and very fine farming grounds. The whole country abounds in bears, elks, buffalo, deer, turkies, &c.—an unquestionable proof of the extraordinary goodness of its soil*.

Fort Pitt stands at the confluence of the Allegany and Monongahela rivers, in latitude $40^{\circ} 31' 44''$, and about five degrees westward of Philadelphia. In the year 1760, a small town, called Pittsburgh, was built near fort Pitt, and about 200 families resided in it; but upon the indian war breaking out in the month of May 1763, they abandoned their houses, and retired into the fort.

In the year 1765 the present town of Pittsburgh was laid out. It is built on the eastern bank of the river Monongahela, about 200 yards from fort Pitt.

The junction of the Allegany and Monongahela rivers forms the river Ohio, and this discharges itself into the Mississippi, in latitude $36^{\circ} 43'$, about 1188 computed miles from fort Pitt. The Ohio, in its passage to the Mississippi, glides through a pleasant, fruitful, and healthy country, and carries a great uniformity of breadth, from 400 to 600 yards, except at its confluence with the Mississippi, and for 100 miles above it, where it is 1000 yards wide. The Ohio, for the greater part of the way to the Mississippi, has many meanders, or windings, and rising grounds upon both sides of it.

The reaches in the Ohio are in some parts from two to four miles in length; and one of them, above the Muskingum river, called the Long reach, is sixteen miles and a half long. The Ohio, about 100 miles above, or northerly

* Indiana lies within the territory here described. It contains about three millions and an half of acres; and was granted to Samuel Wharton, William Trent, and George Morgan, esqrs. and a few other persons, in the year 1768.

of the rapids (formerly called the falls), is in many places 700 yards wide; and as it approaches them, the high grounds on its borders gradually diminish, and the country becomes more level. Some of the banks, or heights, of this river are at times overflowed by great freshes; yet there is scarce a place between fort Pitt and the rapids, a distance of 705 computed miles, where a good road may not be made; and horses employed in drawing up large barges (as is done on the margin of the river Thames in England, and the Seine in France), against a stream remarkably gentle, except in high freshes. The heights of the banks of the Ohio admit them everywhere to be settled, as they are not liable to crumble away.—And to these remarks it may be proper to add the following observations of the ingenious Mr. Lewis Evans, as published in the analysis to his map of the middle colonies of North America, in the year 1755:—he says, that “the Ohio river, as the winter snows are thawed by the warmth or rains in the spring, rises in vast floods, in some places exceeding 20 feet in height, but scarce any where overflowing its high and upright banks. These floods,” Mr. Evans adds, “continue of some height for at least a month or two, according to the late or early breaking up of the winter. Vessels from 100 to 200 tons burden, by taking the advantage of these floods, may go from Pittsburgh to the sea with safety, as then the falls, rifts, and shoals, are covered to an equality with the rest of the river;” and though the distance is upwards of 2000 miles from fort Pitt to the sea, yet as there are no obstructions to prevent vessels from proceeding both day and night, I am persuaded that this extraordinary inland voyage may be performed, during the season of the floods, by rowing, in 16 or 17 days.

The navigation of the Ohio in a dry season is rather troublesome from fort Pitt to the Mingo town (about 75 miles), but from thence to the Mississippi there is always a sufficient depth of water for barges carrying from 100 to 200 tons burden, built in the manner as those are which are used on the river Thames between London and Oxford;—to wit, from 100 to 120 feet in the keel, 16 to 18 feet in breadth, and four feet in depth, and when loaded, drawing about three feet water.

The rapids, in a dry season, are difficult to descend with loaded boats or barges, without a good pilot; it would be adviseable, therefore for the bargemen, in such seasons, rather

rather than run any risk in passing them, to unload part of their cargoes, and reship it when the barges have got through the rapids. It may however be proper to observe, that loaded boats in freshes have been easily rowed against the stream up the rapids, and that others, by means only of a large sail, have ascended them.

In a dry season, the descent of the rapids in the distance of a mile, is about 12 or 15 feet; and the passage down would not be difficult, except perhaps for the following reasons: two miles above them the river is deep, and three quarters of a mile broad; but the channel is much contracted, and does not exceed 250 yards in breadth (near three-fourths of the bed of the river, on the south-eastern side of it, being filled with a flat limestone rock, so that in a dry season there is seldom more than six or eight inches water); it is upon the northern side of the river, and being confined as above mentioned, the descending waters tumble over the Rapids with a considerable degree of celerity and force. The channel is of different depths, but no where, I think, less than five feet: it is clear, and upon each side of it are large broken rocks, a few inches under water*. The rapids are nearly in latitude $38^{\circ} 8'$; and the only indian village (in 1766) on the banks of the Ohio river between them and fort Pitt, was on the north-west side, 75 miles below Pittsburgh, called the Mingo town: it contained 60 families.

Most of the hills on both sides of the Ohio are filled with excellent coal; and a coal-mine was in the year 1760 opened opposite to fort Pitt on the river Monongahela, for

* Colonel Gordon, in his journal down the Ohio, mentions, "that these falls do not deserve that name, as the stream on the north side has no sudden pitch, but only runs rapid over the ledge of a flat rock; several boats," he says, "passed it in the driest season of the year, unloading one-third of their freight. They passed on the north side, where the carrying-place is three quarters of a mile long. On the south-east side, it is about half that distance, and is reckoned the safest passage for those who are unacquainted with it; but it is the most tedious, as during part of the summer and fall the batteaux-men drag their boats over the flat rock. The fall is about half a mile rapid water; which however is passable, by wading and dragging the boat against the stream, when lowest, and with still greater ease, when the water is raised a little."

See the annexed plan. It is a correct description of these rapids, made by the editor on the spot, in the year 1776.

the

the use of that garrison. Salt springs, as well as iron ore, and rich lead mines, are found bordering upon the river Ohio. One of the latter is opened on a branch of the Sioto river; and there the indian natives supply themselves with a considerable part of the lead which they use in their wars, and hunting.

About 584 miles below fort Pitt, and on the eastern side of the Ohio river, about three miles from it, at the head of a small creek or run, where are several large and miry salt springs, are found numbers of large bones, teeth, and tusks, commonly supposed to be those of elephants; but the celebrated doctor Hunter, of London, in his ingenious and curious observations on these bones, &c. has supposed them to belong to some carnivorous animal, larger than an ordinary elephant*.

On the north-western side of Ohio, about 11 miles below the Cherokee river, on a high bank, are the remains of fort Massac, built by the French, and intended as a check to the southern Indians. It was destroyed by them in the year 1763. This is a high, healthy, and delightful situation: a great variety of game; buffalo, bear, deer, &c. as well as ducks, geese, swans, turkies, pheasants, partridges, &c. abounds in every part of this country.

The Ohio, and the rivers emptying into it, afford green and other turtle, and fish of various sorts, particularly carp, sturgeon, perch, and cats; the two latter of an uncommon size, viz. perch, from eight to twelve pounds weight, and cats from 50 to 100 pounds weight.

The lands upon the Ohio, and its branches, are differently timbered according to their quality and situation. The high and dry lands are covered with red, white, and black oak, hickory, walnut, red and white mulberry, and ash trees, grape-vines, &c. The low and meadow lands are filled with fycamore, poplar, red and white mulberry, cherry, beech, elm, aspin, maple, or sugar-trees, grape-vines, &c. and below, or southwardly of the rapids, are several large cedar and cypress swamps, where the cedar and cypress-trees grow to a remarkable size, and where also is a great abundance of canes, such as grow in South-Carolina. The country on both sides the Ohio, extending south-easterly and south-westerly from fort Pitt to the Mississippi, and watered by the Ohio river and its branches, contains at least

* See Philosophical Transactions, 1768.

a million of square miles ; and it may with truth be affirmed, that no part of the globe is blessed with a more healthful air or climate* ; watered with more navigable rivers and branches communicating with the atlantic ocean, by the rivers Potowmac, James, Rappahannock, Mississippi, and St. Lawrence ; or capable of producing with less labour and expence, wheat, indian corn, buck-wheat, rye, oats, barley, flax, hemp, tobacco, rice, silk, pot-ash, &c. than the country under consideration. And although there are considerable quantities of high lands for about 250 miles (on both sides of the river Ohio) southwardly from fort Pitt, yet even the summits of most of the hills are covered with a deep, rich soil, fit for the culture of flax and hemp ; and it may also be added, that no soil can possibly yield larger crops of red and white clover, and other useful grass, than this does.

On the north-west and south-east sides of the Ohio, below the great Kanaway river, at a little distance from it, are extensive natural meadows, or savannas. These meadows are from 20 to 50 miles in circuit. They have many beautiful groves of trees interspersed as if by art in them, and which serve as a shelter for the innumerable herds of buffalo, deer, &c. with which they abound.

Having made these observations, I proceed to give a brief account of the several rivers and creeks which fall into the river Ohio.

Canawagy, when raised by freshes, is passable with small batteaux, to a little lake at its head ; from thence there is a portage of 20 miles to lake Erie, at the mouth of Jadaghque. This portage is seldom used, because Canawagy has scarcely any water in it in a dry season.

* Colonel Gordon, in his journal, gives the following description of the soil and climate : " The country on the Ohio, &c. is everywhere pleasant, with large level spots of rich land, remarkably healthy. — One general remark of this nature may serve for the whole tract of the globe, comprehended between the western skirts of the Allegany mountains, beginning at fort Ligonier, thence bearing south-westerly to the distance of 500 miles opposite to the Ohio falls, then crossing them northerly to the heads of the rivers that empty themselves into the Ohio ; thence east along the ridge that separates the lakes and Ohio's streams to French creek, which is opposite to the above-mentioned fort Ligonier, northerly. This country may, from a proper knowledge, be affirmed to be the most healthy, the most pleasant, the most commodious, and most fertile spot of earth known to european people."

Bughaloons is not navigable; but is remarkable for extensive meadows bordering upon it.

French creek affords the nearest passage to lake Erie. It is navigable with small boats to Le Beuf, by a very crooked channel; the portage thence to Presquile, from an adjoining peninsula, is 15 miles. This is the usual route from Quebec to Ohio.

Licking and Lacomie creeks do not afford any navigation; but there is plenty of coals, and stones for building, in the hills which adjoin them.

Toby's creek is deep enough for batteaux for a considerable way up; thence, by a short portage to the west branch of Susquehannah, a good communication is carried on between Ohio and the eastern parts of Pennsylvania.

Moghulbughkitum is passable also by flat-bottom boats in the same manner as Toby's creek is to Susquehannah, and from thence to all the settlements in Northumberland county, &c. in Pennsylvania.

Kishkeminetas is navigable in like manner as the preceding creeks, for between 40 and 50 miles, and good portages are found between Kishkeminetas, Juniatta, and Potowmac rivers. Coal and salt are discovered in the neighbourhood of these rivers.

Monongahela is a large river, and at its junction with the Allegany river stands fort Pitt. It is deep and gentle, and navigable with batteaux and barges beyond Red-stone creek, and still farther with lighter craft. At 16 miles from its mouth, is Youghiogeny; this river is navigable with batteaux or barges to the foot of Laurel hill.

Beaver creek has water sufficient for flat-bottom boats. At Kishkuskes (about 16 miles up) are two branches of this creek, which spread opposite ways; one interlocks with French creek and Cherâge, the other with Muskingum and Cayahoga; on this branch, about 3 miles above the forks, are many salt-springs. It is practicable with canoes about 20 miles farther.

Muskingum is a fine gentle river, confined by high banks, which prevent its floods from overflowing the surrounding land. It is 250 yards wide at its confluence with the Ohio, and navigable, without any obstructions, by large batteaux or barges, to the Three Legs's, and by small ones to a little lake at its head.

From thence to Cayahoga (the creek that leads to lake Erie) the Cayahoga is muddy, and not very swift, but not
where

where obstructed with falls or rifts. Here are fine uplands, extensive meadows, oak and mulberry trees fit for ship-building, and walnut, chesnut, and poplar trees suitable for domestic services. Cayahoga furnishes the best portage between Ohio and lake Erie; at its mouth it is wide and deep enough to receive large sloops from the lake. It will hereafter be a place of great importance.

Muskingum, in all its wide-extended branches, is surrounded by most excellent land, and abounds in springs, and conveniences particularly adapted to settlements remote from sea navigation; such as salt-springs, coal, clay, and freestone. In 1748 a coal-mine opposite to Lamenshicola mouth took fire, and continued burning above twelve months; but great quantities of coal still remain in it. Near the same place are excellent whetstones, and about eight miles higher up the river is plenty of white and blue clay for glass-works and pottery.

Hockhocking is navigable with large flat-bottom boats between 70 and 80 miles; it has fine meadows with high banks, which seldom overflow, and rich uplands on its borders. Coal, and quarries of freestone, are found about 15 miles up this creek.

Big Kanhaway falls into the Ohio upon its south-eastern side, and is so considerable a branch of this river, that it may be mistaken for the Ohio itself by persons ascending it. It is slow for ten miles, to little broken hills; the low land is very rich, and about the same breadth (from the Pipe hills to the falls) as upon the Ohio. After going ten miles up Kanhaway the land is hilly, and the water a little rapid for 50 or 60 miles further to the falls, yet batteaux or barges may be easily rowed thither. These falls were formerly thought impassable; but late discoveries have proved, that a waggon-road may be made through the mountain which occasions the falls, and that by a portage of a few miles only, a communication may be had between the waters of great Kanhaway and Ohio, and those of James river in Virginia.

Tottery lies upon the south-eastern side of the Ohio, and is navigable with batteaux to the Ouasioto mountains. It is a long river, has few branches, and interlocks with Red creek, or Clinch's river (a branch of the Cherokee), and has below the mountains, especially for 15 miles from its mouth, very good land. Here is a perceptible difference of climate between the upper and this part of Ohio. Here the large

large reed or Carolina cane grows in plenty, even upon the upland, and the winter is so moderate as not to destroy it. The same moderation of climate continues down Ohio, especially on the south-east side, to the rapids, and thence on both sides of that river to the Mississippi.

Great Salt lick creek is remarkable for fine land, plenty of buffaloes, salt-springs, white clay, and limestone. Small boats may go to the crossing of the war-path without any impediment. The salt-springs render the waters unfit for drinking, but the plenty of fresh springs in their vicinity make sufficient amends for this inconvenience.

Kentucky is larger than the preceding creek; it is surrounded with high clay banks, fertile lands, and large salt-springs. Its navigation is interrupted by shoals, but passable with small boats to the gap, where the war-path goes through the Ouasfoto mountains.

Sioto is a large gentle river, bordered with rich flats, or meadows. It overflows in the spring, and then spreads about half a mile, though when confined within its banks it is scarce a furlong wide.

If it floods early, it seldom retires within its banks in less than a month, and is not fordable frequently in less than two months.

The Sioto, besides having a great extent of most excellent land on both sides of the river, is furnished with salt, on an eastern branch, and red bole on Necunfia Skeintat. The stream of Sioto is gentle, and passable with large batteaux or barges for a considerable way, and with smaller boats, near 200 miles, to a portage of only four miles to Sandusky.

Sandusky is a considerable river abounding in level land, its stream gentle all the way to the mouth, where it is large enough to receive floops. The northern Indians cross lake Erie here from island to island, land at Sandusky, and go by a direct path to the lower Shawanoe town, and thence to the gap of the Ouasfoto mountain, in their way to the Cut-tawa country.

Little Mineami river is too small to navigate with batteaux. It has much fine land and several salt-springs; its high banks and gentle current prevent its much overflowing the surrounding lands in freshes.

Great Mineami, Assereniet, or Rocky river, has a very stony channel; a swift stream, but no falls. It has several large branches, passable with boats a great way; one extending westward towards the Wabash river, another to-
wards

wards a branch of Mineami river (which runs into lake Erie), to which there is a portage; and a third has a portage to the west branch of Sandusky, besides Mad creek, where the French formerly established themselves. Rising ground, here and there a little stony, which begins in the northern part of the peninsula, between the lakes Erie, Huron, and Michigan, and extends across little Mineami river below the forks, and southwardly along the Rocky river, to Ohio.

Buffalo river falls into the Ohio on the eastern side of it, at the distance of 925 computed miles from fort Pitt. It is a very considerable branch of the Ohio; is 200 yards wide, navigable upwards of 150 miles for batteaux or barges of 30 feet long, five feet broad, and three feet deep, carrying about seven tons, and can be navigated much farther with large canoes. The stream is moderate. The lands on both sides of this river are of a most luxuriant quality, for the production of hemp, flax, wheat, tobacco, &c. They are covered with a great variety of lofty and useful timber; as oak, hickory, mulberry, elm, &c. Several persons who have ascended this river, say that salt-springs, coal, lime, and free-stone, &c. are to be found in a variety of places.

The Wabash is a beautiful river, with high and upright banks, less subject to overflow than any other river (the Ohio excepted) in this part of America. It discharges itself into the Ohio 1022 miles below fort Pitt, in latitude $37^{\circ} 41'$. At its mouth it is 270 yards wide; is navigable to Ouia-tanon (412 miles) in the spring, summer, and autumn, with batteaux or barges drawing about three feet water. From thence, on account of a rocky bottom and shoal water, large canoes are chiefly employed, except when the river is swelled with rains, at which time it may be ascended with boats, such as I have just described, 197 miles further, to the Miami carrying-place, which is nine miles from the Miami village; and this is situated on a river of the same name, that runs into the south-south-west part of lake Erie. The stream of the Wabash is generally gentle to fort Ouia-tanon, and nowhere obstructed with falls, but is by several rapids, both above and below that fort, some of which are pretty considerable. There is also a part of the river for about three miles, and 30 miles from the carrying-place, where the channel is so narrow that it is necessary to make use of setting poles, instead of oars. The land on this river is remarkably fertile, and several parts of it are natural meadows, of great extent, covered with fine long grass. The timber

is large and high, and in such variety, that almost all the different kinds growing upon the Ohio, and its branches (but with a greater proportion of black and white mulberry-trees), may be found here. A silver mine has been discovered about 28 miles above Ouiatanon, on the northern side of the Wabash, and probably others may be found hereafter. The Wabash abounds with salt-springs, and any quantity of salt may be made from them, in the manner now done at the Saline in the Illinois country: the hills are replenished with the best coal, and there is plenty of lime and free-stone, blue, yellow, and white clay, for glass-works and pottery. Two french settlements are established on the Wabash, called post Vincent and Ouiatanon; the first is 150 miles, and the other 262 miles from its mouth. The former is on the eastern side of the river, and consists of 60 settlers and their families. They raise indian corn, wheat; and tobacco of an extraordinary good quality—superior, it is said, to that produced in Virginia. They have a fine breed of horses (brought originally by the Indians from the spanish settlements on the western side of the river Mississippi), and large stocks of swine and black cattle. The settlers deal with the natives for furs and deer-skins, to the amount of about 5000l. annually. Hemp of a good texture grows spontaneously in the low lands of the Wabash, as do grapes in the greatest abundance, having a black, thin skin, and of which the inhabitants in the autumn make a sufficient quantity (for their own consumption) of well-tasted red wine. Hops, large and good, are found in many places, and the lands are particularly adapted to the culture of rice. All european fruits—apples, peaches, pears, cherries, currants, gooseberries, melons, &c. thrive well, both here, and in the country bordering on the river Ohio.

Ouiatanon is a small stockaded fort on the western side of the Wabash, in which about a dozen families reside. The neighbouring Indians are the Kickapoos, Musquitons, Piankashaws, and a principal part of the Ouiatanons. The whole of these tribes consists, it is supposed, of about 1000 warriors. The fertility of soil and diversity of timber in this country, are the same as in the vicinity of post Vincent. The annual amount of skins and furs obtained at Ouiatanon is about 8000l. By the river Wabash, the inhabitants of Detroit move to the southern parts of Ohio and the Illinois country. Their route is by the Miami river to a carrying-place, which, as before stated, is nine miles to the Wa-

basin, when this river is raised with freshes; but at other seasons, the distance is from 18 to 30 miles, including the portage. The whole of the latter is through a level country. Carts are usually employed in transporting boats and merchandise from the Miami to the Wabash river.

The Shawanoe river empties itself on the eastern side of Ohio, about 95 miles southwardly of the Wabash river. It is 250 yards wide at its mouth, has been navigated 180 miles in batteaux of the construction of those mentioned in the preceding article, and from the depth of water, at that distance from its mouth, it is presumed it may be navigated much further. The soil and timber of the lands upon this river are exactly the same as those upon Buffalo river.

The Cherokee river discharges itself into the Ohio on the same side that the Shawanoe river does; that is, 13 miles below or southerly of it, and 11 miles above or northerly of the place where fort Massac formerly stood, and 57 miles from the confluence of the Ohio with the river Mississippi. The Cherokee river has been navigated 900 miles from its mouth. At the distance of 220 miles from thence, it widens from 400 yards (its general width) to between two and three miles, and continues this breadth for near 30 miles farther. The whole of this distance is called the Muscle shoals. Here the channel is obstructed with a number of islands, formed by trees and drifted wood, brought hither at different seasons of the year, in freshes and floods. In passing these islands, the middle of the widest intermediate water is to be navigated, as there it is deepest. From the mouth of the Cherokee river to Muscle shoals the current is moderate, and both the high and low lands are rich, and abundantly covered with oaks, walnut, sugar-trees, hickory, &c. About 200 miles above these shoals is, what is called, the whirl, or suck, occasioned, I imagine, by the high mountain, which there confines the river (supposed to be the Laurel mountain). The whirl, or suck, continues rapid for about three miles: its width about 50 yards. Ascending the Cherokee river, and at about 100 miles from the suck, and upon the south-eastern side of that river, is Highwassee river. Vast tracts of level and rich land border on this river; but at a small distance from it, the country is much broken, and some parts of it produce only pine-trees. Forty miles higher up the Cherokee river on the north-western side, is Clinch's river. It is 150 yards wide, and about 50 miles up it several families are settled. From
Clinch's

Clinch's to Tenasee river is 100 miles. It comes in on the eastern side, and is 250 yards wide. About ten miles up this river is a Cherokee town, called Chota, and further up this branch are several other indian towns, possessed by Indians called the over-hill Cherokees. The navigation of this branch is much interrupted by rocks, as is also the river called Frenchbroad, which comes into the Cherokee river 50 miles above the Tenasee, and on the same side. One hundred and fifty miles above Frenchbroad is Long island (three miles in length); and from thence to the source of the Cherokee river is 60 miles, and the whole distance is so rocky, as to be scarcely navigable with a canoe.

By the Cherokee river, the emigrants from the frontier counties of Virginia and North-Carolina pass to the settlements in West-Florida upon the river Mississippi. They embark at Long island.

I now proceed to give a description of that part of my map called the Illinois country, lying between the Mississippi westerly, the Illinois river northerly, the Wabash easterly, and the Ohio southerly.

The land at the confluence or fork of the rivers Mississippi and Ohio, is above 20 feet higher than the common surface of these rivers; yet so considerable are the spring floods, that it is generally overflowed for about a week, as are the lands for several miles back in the country. The soil at the fork is composed of mud, earth, and sand, accumulated from the Ohio and Mississippi rivers. It is exceedingly fertile, and in its natural state yields hemp, pea-vines, grass, &c. and a great variety of trees, and in particular, the aspen tree of an unusual height and thickness.

For 25 miles up the Mississippi (from the Ohio) the country is rich, level, and well timbered; and then several gentle rising grounds appear, which gradually diminish at the distance of between four and five miles eastward from the river. From thence to the Kaskaskias river is 65 miles. The country is a mixture of hills and vallies; some of the former are rocky and steep; but they, as well as the vallies, are shaded with fine oaks, hiccory, walnut, ash, and mulberry-trees, &c. Some of the high grounds afford most pleasant situations for settlements. Their elevated and airy positions, together with the great luxuriance of the soil, everywhere yielding plenty of good grass and useful plants,

promise constant health, and ample returns, to industrious settlers.

Many quarries of lime, free-stone, and marble, have been discovered in this part of the country.

Several creeks and rivers fall into the Mississippi, in the above distance (of 65 miles), but no remarkable ones, except the rivers a Vase and Kaskaskias; the former is navigable for batteaux about 60, and the latter for about 130 miles. Both these rivers run through a rich country, abounding in extensive natural meadows, and numberless herds of buffalo, deer, &c.

The high grounds just mentioned, continue along the eastern side of the Kaskaskias river at a small distance from it, for the space of five miles and a half, to the Kaskaskias village; then they incline more towards that river, and run nearly parallel with the eastern bank of the Mississippi, at the distance of about three miles in some parts, and four miles in other parts from it. These are principally composed of lime and free-stone, and are from 100 to 130 feet high, divided in several places by deep cavities, through which many small rivulets pass before they fall into the Mississippi. The sides of these hills, fronting this river, are in many places perpendicular, and appear like solid pieces of stone-masonry, of various colours, figures, and sizes.

The low land between the hills and the Mississippi, begins on the north side of Kaskaskias river, and continues for three miles above the river Missouri, where a high ridge terminates it, and forms the eastern bank of the Mississippi. This interval land is level, has few trees, and is of a very rich soil, yielding shrubs and most fragrant flowers, which, added to the number and extent of meadows and ponds dispersed through this charming valley, render it exceedingly beautiful and agreeable.

In this vale stand the following villages, viz. Kaskaskias, which, as already mentioned, is five miles and a half up a river of the same name, running northerly and southerly. This village contains 80 houses, many of them well built; several of stone, with gardens, and large lots adjoining. It consists of about 500 white inhabitants, and between 4 and 500 negroes. The former have large stocks of black cattle, swine, &c.

Three miles northerly of Kaskaskias, is a village of Illinois Indians (of the Kaskaskias tribe), containing about 210 persons

sons and 60 warriors. They were formerly brave and warlike, but are degenerated into a drunken and debauched tribe, and so indolent, as scarcely to procure a sufficiency of skins and furs to barter for clothing.

Nine miles further northward than the last mentioned village, is another called *la Prairie du rocher* (or the Rock meadows). It consists of 100 white inhabitants, and 80 negroes.

Three miles northerly of this place, on the banks of the Mississippi, stood fort Chartres. It was abandoned in the year 1772, as it was rendered untenable by the constant washings of the river Mississippi in high floods. The village of fort Chartres, a little southward of the fort, contained so few inhabitants, as not to deserve my notice.

One mile higher up the Mississippi than fort Chartres, is a village settled by 170 warriors of the Piorias and Mitchigamias (two other tribes of the Illinois Indians). They are as idle and debauched as the tribe of Kaskaskias, which I have just described.

Four miles higher than the preceding village, is St. Philip's. It was formerly inhabited by about a dozen families, but at present is possessed only by two or three. The others have retired to the western side of the Mississippi.

Forty-five miles further northwards than St. Philip's (and one mile up a small river, on the southern side of it), stands the village of Cahokia. It has 50 houses, many of them well built, and 300 inhabitants, possessing 80 negroes, and large stocks of black cattle, swine, &c.

Four miles above Cahokia, on the western, or spanish side of the Mississippi, stands the village of St. Louis, on a high piece of ground. It is the most healthy and pleasurable situation of any known in this part of the country. Here the spanish commandant, and the principal indian traders, reside; who by conciliating the affections of the natives, have drawn all the indian trade of the Missouri, part of that of the Mississippi (northwards) and of the tribes of Indians residing near the Ouisconsin and Illinois rivers, to this village. In St. Louis are 120 houses, mostly built of stone. They are large and commodious. This village has 800 inhabitants, chiefly french; some of them have had a liberal education, are polite and hospitable. They have about 150 negroes, and large stocks of black cattle, &c.

Twelve miles below, or southerly of fort Chartres, on the western bank of the Mississippi, and nearly opposite to the village of Kaskaskias, is the village of St. Genevieve or

Missire. It contains upwards of 100 houses, and 460 inhabitants, besides negroes. This and St. Louis are all the villages that are upon the western, or spanish side of the Mississippi.

Four miles below St. Genevieve (on the western bank of the Mississippi), at the mouth of a creek, is a hamlet called the Saline. Here all the salt is made, which is used in the Illinois country, from a salt-spring that is at this place*. The ridge which forms the eastern bank of the Mississippi above the Missouri river continues northerly to the Illinois river, and then directs its course along the eastern side of that river for about 220 miles, when it declines in gentle slopes, and ends in extensive rich savannas. On the top of this ridge, at the mouth of the Illinois river, is an agreeable and commanding situation for a fort; and though the ridge is high and steep (about 130 feet high), and rather difficult to ascend, yet when ascended, it affords a most delightful prospect. The Mississippi is distinctly seen from its summit for more than 20 miles, as are the beautiful meanderings of the Illinois river, for many leagues; next a level, fruitful meadow presents itself, of at least 100 miles in circuit on the western side of the Mississippi, watered by several lakes, and shaded by small groves or copses of trees, scattered in different parts of it; and then the eye, with rapture, surveys, as well the high lands bordering upon the river Missouri, as those at a greater distance up the Mississippi. In fine, this charming ridge is covered with excellent grass, large oak, walnut-trees, &c. and at the distance of about nine miles from the Mississippi, up the Illinois river, are seen many large savannas or meadows abounding in buffalo, deer, &c.

* In the several villages on and near the Mississippi, which I have just described (and which are delineated in the annexed plan), there were in the year 1771, 1273 fencible men. To wit—

On the eastern side of the Mississippi,	French 300
	Negroes 230
On the western side of the Mississippi,	
At St. Genevieve,	French 208
	Negroes 80
At St. Louis,	French 415
	Negroes 40

1273

In

In ascending the Mississippi, Cape au Gres particularly attracted my attention. It is about eight leagues above the Illinois river, on the eastern side of the Mississippi, and continues above five leagues on that river. There is a gradual descent back to delightful meadows, and to beautiful and fertile uplands, watered by several rivulets, which fall into the Illinois river between 30 and 40 miles from its entrance into the Mississippi and into the latter at Cape au Gres. The distance from the Mississippi to the river Illinois across the country, is lessened or increased, according to the windings of the former river; the smallest distance is at Cape au Gres, and there it is between four and five miles. The lands in this intermediate space between the above two rivers are rich almost beyond parallel, covered with large oaks, walnut, &c. and not a stone is to be seen, except upon the sides of the river. It is even acknowledged by the french inhabitants, that if settlements were only begun at Cape au Gres, those upon the spanish side of the Mississippi would be abandoned, as the former would excite a constant succession of settlers, and intercept all the trade of the upper Mississippi.

The Illinois river furnishes a communication with lake Michigan, by the Chicago river, and by two portages between the latter and the Illinois river; the longest of which does not exceed four miles.

The Illinois country is in general of a superior soil to any other part of North America that I have seen. It produces fine oak, hickory, cedar, mulberry-trees, &c. some dying roots and medicinal plants; hops, and excellent wild grapes; and, in the year 1769, 110 hogheads of well-tasted and strong wine were made by the french settlers from these grapes. A large quantity of sugar is also annually made from the juice of the maple-tree; and as the mulberry-trees are large and numerous, I presume the making of silk will employ the attention and industry of the settlers, when the country is more fully inhabited than it is at present, and especially as the winters are much more moderate, and favourable for the breed of silk-worms, than they are in many of the sea-coast provinces. Indigo may likewise be successfully cultivated (but not more than two cuttings in a year); wheat, peas, and indian corn thrive well, as does every sort of grain and pulse, that is produced in any of the old colonies. Great quantities of tobacco are also yearly raised by the inhabitants of the Illinois, both for their own consumption and that of the Indians; but little has hitherto been ex-

ported to Europe. Hemp grows spontaneously, and is of a good texture; its common height is ten feet, and its thickness three inches (the latter reckoned within about a foot of the root), and with little labour any quantity may be cultivated. Flax seed has hitherto been only raised in small quantities. There has however been enough produced to shew that it may be sown to the greatest advantage. Apples, pears, peaches, and all other european fruits, succeed admirably. Iron, copper, and lead mines, as also salt-springs, have been discovered in different parts of this territory. The two latter are worked on the spanish side of the Mississippi, with considerable advantage to their owners. There is plenty of fish in the rivers, particularly cat, carp, and perch, of an uncommon size. Savannas, or natural meadows, are both numerous and extensive; yielding excellent grass, and feeding great herds of buffalo, deer, &c. Ducks, teal, geese, swans, cranes, pelicans, turkies, pheasants, partridges, &c. such as are seen in the sea-coast colonies, are in the greatest variety and abundance. In short, every thing that a reasonable mind can desire, is to be found, or may with little pains be produced here *.

Niagara fort is a most important post. It secures a greater number of communications, through a larger country, than probably any other pass in interior America; it stands at the entrance of a strait, by which lake Ontario is joined to lake Erie, and the latter is connected with the three great lakes Huron, Michigan, and Superior. About nine miles above fort Niagara the carrying-place begins. It is occasioned by the stupendous cataract of that name. The quantity of water that tumbles over this fall is unparalleled in America; its height is not less than 137 feet. This fall would interrupt the communication between the lakes Ontario and Erie, if a road was not made up the hilly country that borders upon the strait. This road extends to a small post eighteen miles from fort Niagara. Here the traveller embarks in a batteau or canoe, and proceeds 18 miles to a small fort at lake Erie. It may be proper also to add, that at the end of the first two miles in the last mentioned distance of 18 miles, the stream of the river is divided by a large island, above nine miles in length; and at the upper end of it, about a mile from lake Erie, are three or

* See the annexed plan of the villages in the Illinois country, &c. and see Mr. P. Kennedy's journal hereunto annexed, for a farther account thereof.

four islands, not far from each other. These islands, by interrupting and confining the waters discharged from the lake, greatly increase the rapidity of the stream; which indeed is so violent, that the stiffest gale is scarcely sufficient to enable a large vessel to stem it: but it is successfully resisted in small batteaux or canoes, that are rowed near the shore.

Lake Erie is about 225 miles in length, and upon a medium about 40 miles in breadth. It affords a good navigation for shipping of any burden. The coast on both sides of the lake is generally favourable for the passage of batteaux and canoes. Its banks in many places have a flat sandy shore, particularly to the eastward of the peninsula called Long point, which extends into the lake in a south-eastern direction for upwards of 18 miles, and is not more than five miles wide in the broadest part; but the isthmus, by which it joins the continent, is scarcely 200 yards wide. The peninsula is composed of sand, and is very convenient to haul boats out of the surf upon (as is almost every other part of the shore) when the lake is too rough for rowing or sailing; yet there are some places, where, in boisterous weather (on account of their great perpendicular height), it would be dangerous to approach, and impossible to land.

Lake Erie has a great variety of fine fish, such as sturgeon, eel, white fish, trout, perch, &c.

The country northward of this lake is in many parts swelled with moderate hills, but no high mountains. The climate is temperate, and the air healthful. The lands are well timbered (but not generally so rich as those upon the southern side of the lake); and for a considerable distance from it, and for several miles eastward of Cayahoga river, they appear quite level, and extremely fertile; and except where extensive savannas, or natural meadows, intervene, are covered with large oaks, walnut, ash, hickory, mulberry, sassafras, &c. and produce a great variety of shrubs and medicinal roots. Here also is great plenty of buffalo, deer, turkies, partridges, &c.

Fort Detroit is of an oblong figure, built with stockades, and advantageously situated, with one entire side commanding the river called Detroit. This fort is near a mile in circumference, and encloses about 100 houses, built in a regular manner, with parallel streets, crossing each other at right angles. Its situation is delightful, and in the centre of a pleasant, fruitful country.

The strait Saint Clair (commonly called the Detroit river)

river) is at its entrance more than three miles wide ; but in ascending it, its width perceptibly diminishes, so that opposite to the fort (which is 18 miles from lake Erie) it does not exceed half a mile in width. From thence to lake St. Clair it widens more than a mile. The channel of the strait is gentle and wide, and deep enough for shipping of great burden, although it is incommoded by several islands ; one of which is more than seven miles in length. These islands are of a fertile soil, and from their situation afford a very agreeable appearance. For eight miles below, and the same distance above fort Detroit, on both sides of the river, the country is divided into regular and well-cultivated plantations ; and from the contiguity of the farmers' houses to each other, they appear as two long-extended villages. The inhabitants, who are mostly French, are about 2000 in number ; 500 of whom are as good marksmen, and as well accustomed to the woods, as the indian natives themselves. They raise large stocks of black cattle, and great quantities of corn, which they grind by wind-mills, and manufacture into excellent flour. The chief trade of Detroit consists in a barter of coarse european goods with the natives for furs, deer-skins, tallow, &c.

The route from lake St. Clair to lake Huron is up a strait or river about 400 yards wide. This river derives itself from lake Huron, and at the distance of 33 miles loses itself in lake St. Clair. It is in general rapid, but particularly so near its source ; its channel, and also that of lake St. Clair, are sufficiently deep for shipping of very considerable burden. This strait has several mouths, and the lands lying between them are fine meadows. The country on both sides of it, for 15 miles, has a very level appearance ; but from thence to lake Huron, it is in many places broken, and covered with white pines, oaks, maple, birch, and beech.

Mr. Patrick Kennedy's journal of an expedition undertaken by himself and several courcurs de bois in the year 1773, from Kaskaskias village in the Illinois country, to the head waters of the Illinois river.

" JULY 23, 1773. We set out from Kaskaskias in search of a copper mine, and on the 31st reached the Illinois river ; it is 84 miles from Kaskaskias. The same day we entered

entered the Illinois river, which is 18 miles above that of the Missouri. The water was so low, and the sides of the river so full of weeds, that our progress was much interrupted, being obliged to row our boat in the deep water, and strong current. The chain of rocks and high hills which begin at the Piasas about three miles above the Missouri, extend to the mouth of the Illinois river, and continue along the south-eastern side of the same in an east-north-east course. About 18 miles up this river, on the eastern side, is a little river called by the natives Macopin or White potatoe river; it is 20 yards wide, and navigable nine miles to the hills. The shore is low on both sides; the timber, bois connu, or paccan, maple, ash, button-wood, &c. The course of the Illinois river here is N. N. E; the land is well timbered, and covered with high weeds. There are fine meadows at a little distance from the river; the banks of which do not crumble away as those of the Mississippi do. We passed numbers of small islands, some of them between nine and twelve miles in length, and three miles in breadth.—The general width of the river in this day's journey was about 400 yards.

“ August 1. About twelve o'clock, we stopped at the Piorias wintering ground. About a quarter of a mile from the river, on the eastern side of it, is a meadow of many miles long, and five or six miles broad. In this meadow are many small lakes, communicating with each other, and by which there are passages for small boats or canoes, and one in particular leads to the Illinois river: the timber in general very tall oaks. We met with some beautiful islands in this part of the river (48 miles from the Mississippi), and great plenty of buffalo and deer.

“ August 2. At one o'clock we passed an island called Pierre. A fleche or arrow stone is gotten by the Indians from a high hill on the western side of the river near the above island; with this stone the natives make their gun-flints, and point their arrows. Half a league above this island, on the eastern side of it, the meadows border on the river, and continue several miles; the land is remarkably rich, and well watered with small rivulets from the neighbouring hills. The banks of the river are high, the water clear, and at the bottom of the river are white marl and sand.

“ August 3. Passed the Mine river. It comes into the Illinois river on the north-western side of it, 120 miles from the Mississippi. It is 50 yards wide, and very rapid.

“ August

" August 4. Here the land on both sides of the Illinois river is low, but rises gradually. The prairie or meadow-ground on the eastern side, is at least 20 miles wide; it is fine land for tillage, or for grazing cattle, and is well watered with a number of springs. About 12 o'clock we passed the river Sagamond, 135 miles from the Mississippi. It is a river 100 yards wide, and navigable for small boats or canoes upwards of 180 miles; and about sun-set we passed the river Demi-Quian. It comes in on the western side of the Illinois river (165 miles from the Mississippi); is 50 yards wide, and navigable 120 miles. We encamped on the south-eastern side of the Illinois river, opposite to a very large savanna, belonging to, and called, the Demi-Quian swamp. The lands on the south-eastern side are high and thinly timbered; but at the place of our encampment are fine meadows, extending farther than the eye can reach, and affording a delightful prospect. The low lands on the western side of the Illinois river, extend so far back from it, that no high grounds can be seen. Here is plenty of buffalo, deer, elk, turkies, &c,

" August 5. It rained all day, which detained us till the evening, when we embarked, and rowed till dark; in our way we passed the lake Demi-Quian, 200 yards west from the river of that name; it is of a circular figure, six miles across, and discharges itself by a small passage four feet deep into the Illinois river. This lake is 171 miles from the Mississippi. The general course of the Illinois river varies very little; it rather however inclines to the eastward. The lands are much the same as before described, only the prairies (meadows) extend further from the river. By our reckoning, we are 177 miles from the Mississippi.

" August 6. Set out early, and at 11 o'clock we passed the Sefeme-Quian river. It is on the western side of the Illinois river; is 40 yards wide, and navigable 60 miles; the land bordering on this river is very good. About four o'clock we passed the river De la March (on the western side also of the Illinois river); it is 30 yards wide, and navigable about eight or nine miles only. Though the De la March is not so long as the Sefeme-Quian, yet it is much handsomer. These rivers are about nine miles distant from each other. Here the land begins to rise gradually on the western bank. At sun-set we passed a river called Michilimackinac. It is on the south-eastern side of the Illinois river; is 50 yards wide, navigable for about 90 miles, and

has between 30 and 40 small islands at its mouth ; which at a distance appear like a small village. On the banks of this river is plenty of good timber, viz. red and white cedar, pine, maple, walnut, &c ; and finding some pieces of coal, I was induced to walk up the river a few miles, though not far enough, to reach a coal-mine. In many places I also found clinkers, which inclined me to think that a coal-mine, not far distant, was on fire, and I have since heard there was. The land is high on the eastern bank of the river, but on the western are large plains or meadows, extending as far as can be seen, covered with fine grass. This river is 195 miles from the Mississippi.

“ August 7. The morning being very foggy, and the river overgrown with weeds along its sides, we could make but little way. About 12 o'clock we got to the old Pioria fort and village on the western shore of the river, and at the southern end of a lake called the Illinois lake ; which is 19 miles and a half in length, and three miles in breadth. It has no rocks, shoals, or perceivable current. We found the stockades of this Pioria fort destroyed by fire, but the houses standing. The summit on which the fort stood, commands a fine prospect of the country to the eastward, and up the lake to the point where the river comes in at the north end ; to the westward are large meadows. In the lake is great plenty of fish, and in particular, sturgeon, and picannau. On the eastern side of the lake, about the middle of it, the chain of rocks, that extends from the back of Kaskaskias, to Cahokia, Piafa, the mouth of the Illinois river, &c. terminates. The country to the westward is low and very level, covered with grass, weeds, flags, &c. Here is abundance of cherry, plum, and other fruit-trees. This lake is 210 miles from the Mississippi.

“ August 8. The wind being fair we made a sail of our tent, and reached the upper end of the lake by sun-set ; and the wind continuing fair we ascended the river, and about four o'clock passed Crows-meadows river, which comes from the eastward ; and over against it, on the west side, are the meadows just mentioned, 240 miles from the Mississippi. This river is 20 yards wide, and navigable between 15 and 18 miles. The land on both sides of the Illinois river, for 27 or 30 miles above the lake, is generally low and full of swamps, some a mile wide, bordered with fine meadows, and in some places the high land comes to the river in points, or narrow necks.

" August 9. At ten o'clock we passed the Riviere de l'isle de pluye, or Rainy island river: on the south-east side it is 15 yards wide, and navigable nine miles to the rocks. After passing this river, which is 255 miles from the Mississippi, we found the water very shallow, and it was with difficulty that we got forward, though we employed seven oars, and our boat drew only three feet water. The grass which grows in the interval or meadow ground, between the Illinois river and the rocks, is finer than any we have seen, and is thicker and higher and more clear from weeds than in any of the meadows about Kaskaskias or fort Chartres. The timber is generally birch, button, and paccan. The wind continuing fair, about ten o'clock we passed the Vermillion river, 267 miles from the Mississippi. It is 30 yards wide, but so rocky as not to be navigable. At the distance of a mile further, we arrived at the little rocks, which are 60 miles from the forks, and 270 miles from the Mississippi. The water being very low, we could get no further with our boat, and therefore we proceeded by land to the forks. We set out about two o'clock on the western side of the river; but the grass and weeds were so high, that we could make but little way.

" August 10. We crossed the high land, and at ten o'clock we came to the Fox river (or a branch of it), after walking 24 miles. It falls into the Illinois river, 30 miles beyond the place where we left our boat. The Fox river is 25 yards wide, and has about five feet water; its course is from the westward by many windings through large meadows. At three miles distance, after crossing this river, we fell in with the Illinois river again, and kept along its bank; here we found a path. About six o'clock we arrived, after walking about 12 miles, at an old encampment, 15 miles from the fork. The land is stony, and the meadows not so good as some which we formerly passed. From hence we went to an island, where several french traders were encamped; but we could get no intelligence from them about the copper mine which we had set out in search of. At this island we hired one of the french hunters to conduct us in a canoe to our boat.

" August 11. We set off about three o'clock, and at night got within nine miles of our boat. We computed it to be 45 miles from the island we last departed from, to the place where we left our boat.

" August 12. We embarked early, and proceeded three miles down the Illinois river. On the north-western side of
this

this river is a coal-mine, that extends for half a mile along the middle of the bank of the river, which is high. On the eastern side, about half a mile from it, and about the same distance below the coal-mine, are two salt ponds, 100 yards in circumference, and several feet in depth; the water is stagnant, and of a yellowish colour; but the French and natives make good salt from it. We tasted the water, and thought it saltier than that which the French make salt from, at the Saline near St. Genevieve. At nine o'clock we arrived at our boat. From the island where we found the french traders, and from whence we embarked in a canoe to go to our boat, there is a considerable descent and rapid all the way. Here it is that the french settlers cut their mill-stones. The land along the banks of the river is much better than what we met with, when we crossed the country on the 10th of this month. On the high lands, and particularly those on the south-eastern side, there is abundance of red and white cedar, pine-trees, &c. We embarked about two o'clock, and proceeded till nine at night.

" August 13. We lay by half this day, on account of wet weather.

" August 14. Embarked early, and after crossing the Illinois lake arrived late in the evening at the Pioria fort.

" August 15. Rowed very constantly all day, and arrived at the Mine river in the evening. Here I met with Mr. Janiste, a french gentleman, and prevailed on him to accompany me, in an attempt up this river, to discover the copper mine.

" August 16. Embarked early, and ascended the Mine river in a small canoe, about six miles, but could get no further, as the river was quite dry a little higher up. It runs the above distance through very high grounds, is rocky and very crooked; the banks of the river are much broken, and the passage choked with timber; Mr. Janiste says, that the current is so strong in floods, nothing can resist it. The bottom is sand, green in some places, and red in others; it is said that there is an alum hill on this river. As I thought that it was impossible to get to the mine by land at this season of the year, on account of the rocky mountains, weeds, briars, &c. I determined to return to Kaskaskias, and accordingly we went back to our boat, embarked about one o'clock, and continued rowing day and night until 12 o'clock the 18th, when we entered the river Mississippi on our way to Kaskaskias village."

No. V.

A short description of the state of Tenassee, lately called the territory of the United States south of the river Ohio.—[March 9, 1796.]

THE state of Tenassee, lately called * the territory of the United States south of the river Ohio. is that tract of country which was ceded to the United States by the state of North Carolina, in the year 1789. It is situated between the parallels of 35° and $36^{\circ} 30'$, extending from the great Iron mountain to the river Mississippi.

When we cast our eyes on the map of any country, especially the map of a new country, in which little else is seen than the situation of mountains, rivers, and plains, we are desirous to know what is the state of its soil and climate; what are the advantages its inhabitants may be expected to enjoy, or the difficulties under which they must labour. A general answer to these questions, as they respect the Tenassee government, is the object of this publication.

We discover, at first sight, that the state is cut into eastern and western divisions, by Cumberland mountain, a ridge near 30 miles broad; and it is probable that the commercial connexions of people who live in the eastern division, may be different from those of the western inhabitants. The great island on Holston river is not above 340 miles from Richmond in Virginia, along a good waggon road;

* The legislature of the territory of the United States south of the river Ohio, at their session in July 1795, made a law for numbering the inhabitants, in order to determine whether they were not entitled to all the privileges of a state, according to an ordinance of congress, passed the 13th of July 1787, respecting states to be formed in the ceded territory; which provides, that "Whenever any of the said states shall have 60,000 inhabitants therein, such state shall be admitted by its delegates into the congress of the United States, on an equal footing with the original states, in all respects whatever." On taking the census, it appeared, that there were in the territory 77,262 inhabitants, of whom 66,649 were free persons: whereupon the governor, in pursuance of the law, called a convention, who lately met at Knoxville, formed a constitution, &c.

whence



No. V.

A short description of the state of Tenaſſee, lately called the territory of the United States ſouth of the river Ohio.—[March 9, 1796.]

THE ſtate of Tenaſſee; lately called * the territory of the United States ſouth of the river Ohio. is that tract of country which was ceded to the United States by the ſtate of North Carolina, in the year 1789. It is ſituated between the parallels of 35° and $36^{\circ} 30'$, extending from the great Iron mountain to the river Miſſiſſippi.

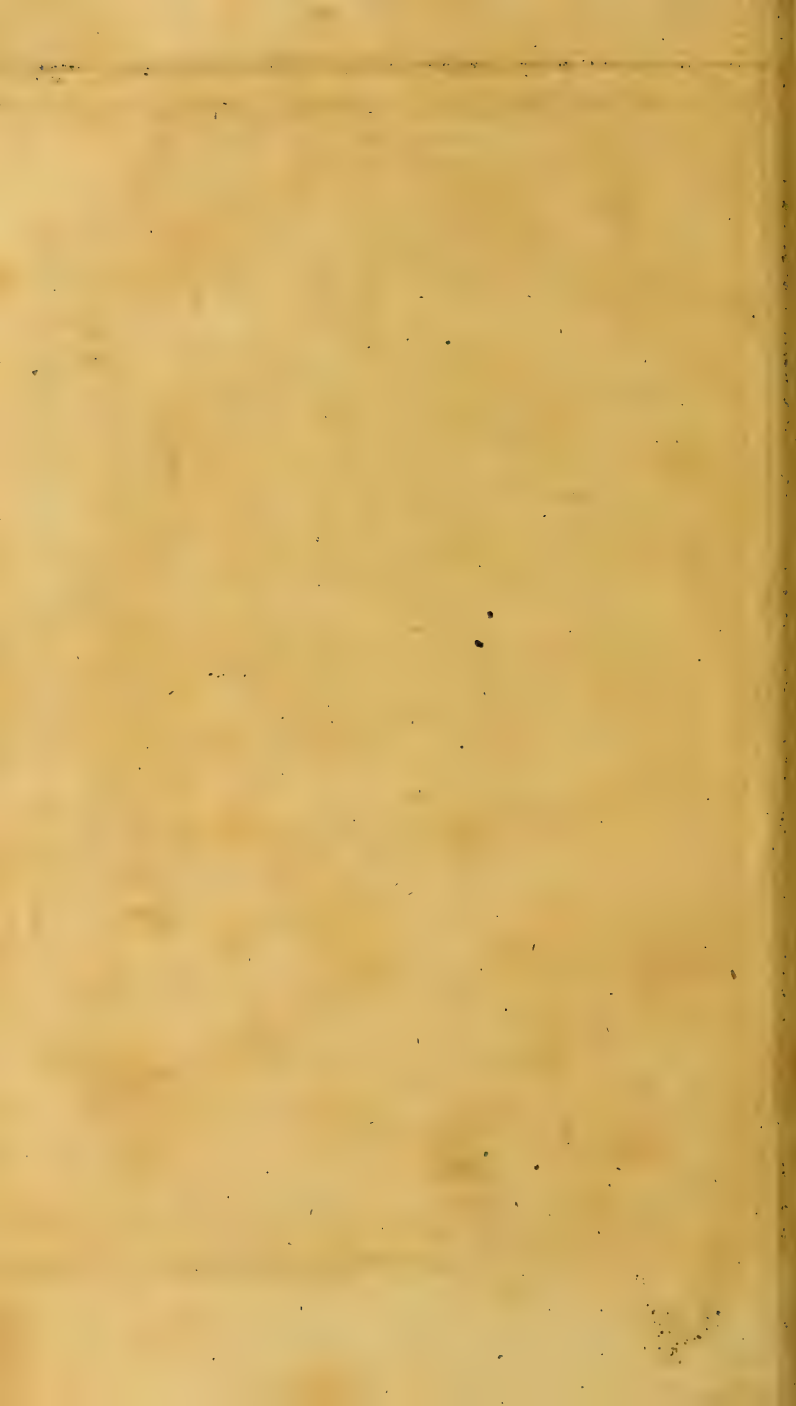
When we caſt our eyes on the map of any country, eſpecially the map of a new country, in which little eſſe is ſeen than the ſituation of mountains, rivers, and plains, we are deſirous to know what is the ſtate of its ſoil and climate; what are the advantages its inhabitants may be expected to enjoy, or the difficulties under which they muſt labour. A general answer to theſe queſtions, as they reſpect the Tenaſſee government, is the object of this publication.

We diſcover, at firſt ſight, that the ſtate is cut into eaſtern and weſtern diviſions, by Cumberland mountain, a ridge near 30 miles broad; and it is probable that the commercial connexions of people who live in the eaſtern diviſion, may be different from thoſe of the weſtern inhabitants. The great iſland on Holſton river is not above 340 miles from Richmond in Virginia, along a good waggon road;

* The legiſlature of the territory of the United States ſouth of the river Ohio, at their ſeſſion in July 1795, made a law for numbering the inhabitants, in order to determine whether they were not entitled to all the privileges of a ſtate, according to an ordinance of congreſs, paſſed the 13th of July 1787, reſpecting ſtates to be formed in the ceded territory; which provides, that “Whenever any of the ſaid ſtates ſhall have 60,000 inhabitants therein, ſuch ſtate ſhall be admitted by its delegates into the congreſs of the United States, on an equal footing with the original ſtates, in all reſpects whatever.” On taking the cenſus, it appeared, that there were in the territory 77,262 inhabitants, of whom 66,649 were free perſons: whereupon the governor, in purſuance of the law, called a convention, who lately met at Knoxville, formed a conſtitution, &c.

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whence we may conclude that the settlers on Holston will preserve a considerable intercourse with the atlantic states : but people who live to the westward of Cumberland mountain, will send their produce to market by means of the Mississippi. This remarkable difference in their situation will probably induce the inhabitants of those districts to employ themselves differently ; for the most proper or profitable productions in one settlement, may not be most profitable in the other.

The Holston settlement contains 62,338 inhabitants, though in the year 1775 it hardly contained 2000. The land in this settlement is generally fertile ; but the face of the country is much broken. Placed, as it is, between two large mountains, we may readily suppose that the farmer never suffers by the want of rain. The soil produces wheat, barley, indian corn, hemp, and flax, in great perfection. Physicians have not hitherto found their way to that country, for the people have not been sick. They enjoy a temperate climate, ease, and abundance.

Iron ore abounds in that country. A capital furnace and forge have lately been erected on Holston, near the Virginia line. There is a bloomery below the mouth of Wataga, and another 25 miles above the mouth of Frenchbroad. There are also sundry lead-mines in the settlement, one in particular on Frenchbroad river, that produces 75 per cent. in pure lead.

The greatest part of the state of Tenasee lies on the west side of Cumberland mountain ; and though that country has hardly been settled ten years by civilized men, it naturally claims the greatest share of our attention, because it is extensive, and will probably become the residence of a numerous and powerful colony.

The mean distance between Cumberland mountain and the Mississippi is about 230 miles. This, at 103 miles broad, gives 15 millions of acres ; and it is generally agreed, that 11 or 12 millions of that land may be cultivated to advantage ; such is the proportion of arable land. The natives, who formerly inhabited that country, must have been very numerous ; we seldom go more than five or six miles along the banks of Cumberland river, without finding a large burying-place, the evident remains of a considerable town. As the Indians had their choice of land, and do not appear to have been equally numerous in other places, we

may suppose they found this to be a soil on which they could live with the greatest ease.

BOUNDARIES.—It is bounded by the states of Virginia and Kentucky on the north; by North-Carolina on the east; by South-Carolina and Georgia on the south; and by the river Mississippi, which separates it from the spanish province of Louisiana, on the west.

DIVISIONS.—It is divided into three districts: Washington, Hamilton, and Mero; containing nine counties; Washington, Sullivan, Green, Hawkins, Knox, Jefferson, Davidson, Sumner, and Tenasee.

SITUATION.—It is situate between the latitude 35° , and $36^{\circ} 30'$ north, which parallels form its northern and southern boundaries; its breadth therefore is 104 miles, and its length, from the North-Carolina line to the Mississippi, about 400 miles.

RIVERS.—There are few countries so well intersected by creeks and rivers: the principal are the Mississippi, Tenasee, Cumberland, Holston, Clinch, Wolf, Hatchee, Forked-deer, Obion, and Reelfoot.

The Tenasee, formerly called by the French Cherokee, empties itself into the Ohio, nearly 60 miles above its junction with the Mississippi.

The Cumberland, called by the French Shavanon, discharges its waters in the Ohio, ten miles above the mouth of the Tenasee.

Holston river, the principal north fork of the Tenasee, receives in its bed, before its junction with the Tenasee, several considerable rivers, Nolachucky, Wattauga, Frenchbroad, and Little river.

Clinch runs into the Tenasee below the mouth of Holston. Duck river empties into the Tenasee below the Muscle shoals, and Elk river above them.

Emery river is a branch of Clinch.

Obed river, the Caney-fork, Red river, Stone river, and Harpeth, are considerable branches of Cumberland river*. This country contains, besides, a large number of bold, navigable creeks.

MOUNTAINS.—Yellow, Bald, Iron, and Uncka mountains, which form the eastern boundary of this territory, and separate it from North-Carolina, are a chain of mountains

* For a more particular account of the rivers, see before p. 36, 38, 40, and passim.

running nearly south-westwardly. Clinch mountain divides the waters of Holston and Clinch rivers.

The large Cumberland mountain separates the eastern inhabitants of this government from the western ones:

TOWNS—Knoxville, the capital and seat of government, was established by William Blount, esq. the first governor of this territory; is situate in a beautiful spot on the north bank of Holston river, a few miles below the mouth of Frenchbroad. This town is remarkable for the treaty held by governor Blount in 1791, with the chiefs and head warriors of the Cherokee nation. It is the residence of the public officers of government. A printing-office is established here, and the inhabitants enjoy the advantage of communicating to every part of the United States by post. The superior court of law, the court of equity for Hamilton district, and the court of pleas and quarter session for Knox county, are held in this town, which is in a very flourishing situation.

Nashville, on the south bank of Cumberland river, is the district town of Mero: the courts of the district are held here. The Davidson academy, which is richly endowed, is in this town.

Jonesborough, the capital of Washington district, is the seat of the courts of the district.

There are several other small towns that bid fair to increase in consequence.

ROADS and DISTANCES.—From Knoxville, the present seat of government, to Philadelphia, is 650 miles.

	Miles.
From Knoxville to Long-island, on Holston, is	100
Abingdon	43
Fort Chiffel	64
English's ferry, New river	24
Montgomery town	11
Big lick	33
Liberty town	28
New London	15
Floods	34
Powhatan court-house	65
Richmond	32

From Knoxville to Richmond 494

These two roads are very good waggon-roads; and the price of transportation of any goods or articles from Richmond to Knoxville does not exceed four dollars per cwt.

From Knoxville to Nashville the distance is 183 miles, viz.

	Miles.
From Knoxville to South-west Point	- 35
Big lick garrison, on Cumberland	- 80
Bledfoe lick	- 32
Nashville	- 36
	<hr/> 183 <hr/>

The 80 miles between the two garrisons are not yet opened for waggons; but families moving to the settlements on Cumberland, send generally their baggage by water from Knoxville down the Tenafee river.

	Miles.
From Nashville to Lexington, in Kentucky,	- 190
Three forks of Red river	- 28
Big Barren river	- 32
Green river	- 45
Danville	- 50
Lexington	- 35

It is a beautiful road through the barrens.

In the summer of 1795, a good waggon-road was cut across Cumberland mountain, and it was passed by 30 or 40 waggons in the fall. The late friendly conduct of the Cherokee Indians, in consequence of a long talk with governor Blount, and the amicable disposition of the spanish government, have greatly altered the condition of settlers on Cumberland river, and made them perfectly happy. Several thousands crossed the Cumberland mountain in September, October, and November last, in detached families, without a guard, and without danger. The Indians treated them with kindness, visited their camps at night, and supplied them plentifully with venison.

From Nashville, on Cumberland river, to Lexington, in Kentucky, is 190 miles.

From Nashville to New Orleans the distance by land is about 450 miles—the country in general level; and a good road might be cut at a small expence.

CLIMATE.—The climate in this country is very temperate; and the experience of ten years assures us that it is healthy. The piercing northerly winds that prevail, during the winter, in the atlantic states, seldom molest the inhabitants on Cumberland river, for they have no great mountains

mountains to the north or the westward. The inhabitants of the atlantic states are also subjected to sudden changes in the atmosphere, arising from their vicinity to the ocean; the air that comes from the surface of the sea, especially from the warm gulf-stream in winter, must be very different in its temperature from the air that comes across cold and high mountains; but the great distance between the Cumberland settlers and the ocean, considering that many great mountains are interposed, effectually secures them against the bad effects of those sudden changes. North-easterly storms never reach this country.

Other circumstances present themselves, by which we may account for the remarkable healthiness of this settlement. Lime-stone is common on both sides of Cumberland mountain. The bottom of a river on the west side of the mountain is frequently a continued stratum of this rock. It is generally known that small streams of water are apt to disappear in countries that abound in lime-stone; this is occasioned, doubtless, by the great fissures that are common in those rocks; from the same cause it probably arises, that we seldom find marshes or stagnant waters where there is much lime-stone. In this state we find no stagnant waters; and this is certainly one of the reasons why the inhabitants are not afflicted with those bilious and intermitting fevers, which are so frequent, and often fatal, in the same latitude, near the coast in Carolina. Whether it proceeds from the goodness of the water, the purity of the air, the temperature of the climate, or whatever else may have been the cause, the inhabitants of that country have certainly been remarkably healthy, ever since they settled on the waters of Cumberland river; whence it appears the climate is healthy and pleasant.

Men frequently change their habitations in quest of a better place; and the man who can enjoy the greatest degree of health, ease, and plenty, is generally supposed to have the most desirable habitation. Keeping this remark in view, perhaps there are few places that present fairer prospects to the man who is looking for a settlement. Few places are more healthy; there is none more fertile; and there is hardly any other place in which the farmer can support his family in such a degree of affluence. The soil is not only fertile, but easily cultivated. Six hogsheads of tobacco for one man does not require more labour than three hogsheads in the atlantic states; and a difference similar

to this appears in every other crop. In the culture of corn the difference is greater. This circumstance alone would secure abundance to the industrious man; but we must also recollect that, in cold climates, the farmer is shut up or prevented from working several months in the year, during which cold season he is consuming his stores, and his cattle are making greater destruction. When we consider the quantity of food that must be laid up for the necessary support of stock in cold climates, we may fairly calculate, that half of the farmer's time is spent in making provision for his cattle, or in sheltering himself from the weather. In the state of Tenassee cattle at present support themselves among the reeds, pea-vines, rye-grass, and clover; but when the progress of cultivation shall have destroyed the wild range, it is obvious that the fodder and straw obtained from the ordinary crops, will be more than sufficient to support the cattle.

Let us review this account. It is granted that, in cold climates, more than half of the farmer's time is lost from labour by intemperate weather, or taken up in working for the support of his cattle; this gives an odds of two to one in favour of the country that has been described. We are next to recollect, that one day's labour in this country produces more than twice as much grain, or other provisions, as it produces in common land, and in a northern climate; this gives another difference of two to one, which makes four to one throughout the year: but considering that industry, in all countries, bears some proportion to the necessities of the inhabitants, we shall suppose that the farmer in this territory during the year raises only twice as much provision for his family as he could raise on common land in a colder climate; and the difference, as it respects himself, must be immense. In this country he would live in great affluence, or become rich, by that measure of industry which, in the other situation, would hardly be sufficient to the support of a miserable life.

People, however, are seldom contented with the mere necessities of life. There are certain luxuries which the progress of society has taught us to consider as necessary. Sugar, coffee, and tea, belong to this class; as do sundry articles of foreign dress. What is the farmer to sell in the western part of the state, that he may be enabled to buy foreign articles? He lives at a great distance from sea: how is he to be provided with salt?

It is very remarkable, that the farmer has more use for salt in the western country, than in the atlantic states. His cattle, in that country, will not thrive without salt; and this is the only thing at present he has any occasion to give them. It has already been observed, that lime-stone abounds in the western country; this stone is not found in the southern states, until we approach the first ridge of mountains. As we travel westward, we find lead-ore and salt-springs in abundance. Does this country abound in articles that are seldom found in the atlantic states, because it is composed of the original mother earth; whereas the land near the coast, in the middle and southern states, is adventitious? Be this as it may, the salt-springs that are found in every part of the western country, afford the utmost relief to the inhabitants, whose cattle, from the quality of their food, have more need of salt than those who are nearer the sea. Hitherto the salt-works have not been judiciously managed, either at Kentucky or the Cumberland settlement; and yet salt, made from the water of salt-springs, may be purchased for one dollar the bushel. As the source can never fail, and the mode of preparing it is capable of great improvement, we may reasonably suppose that the average price of salt made on Cumberland river, will be three-fourths of a dollar the bushel.

The settlers have not had much experience of bringing loaded boats up the Mississippi; but they calculate, from the trips they have made, that salt may be freighted from New Orleans to Nashville, at rather less than three-eighths of a dollar the bushel; and it appears, from similar experiments, that pork, flour, or other produce, may be easily taken from Nashville to New Orleans at less than three-eighths of a dollar the barrel. Those calculations regard the Mississippi in its present state, with all its circular bendings, the banks covered with trees, and no part of the upper country settled; but the river, at present, is more than double the necessary length. From the mouth of the river Ohio to New Orleans, the present distance by water is supposed to be 1000 miles: the direct distance is considerably short of 500 miles. In navigating that river we often find places like a horse-shoe, where we do not gain more than a mile by sailing or rowing five miles. Every one of those bends may be cut off at a small expence. Let a common ditch, three or four feet deep, be dug across those necks of land, the roots being cut away when the river is low, and the next flood, by the

rapidity of the stream through the short passage, will change the ditch to a navigable channel. An experiment of this kind has been made with success, at a place called Point Coupée. Two great benefits will arise from this process of giving the river a straight course; one half of the time and labour in ascending the river will be saved by shortening the distance. This case supposes that vessels ascend the river by the help of oars and poles, without sails, which is generally the case at present, because the river is so crooked, that no wind can be fair; but in case the chief bendings of the river should be cut off, as a southerly wind prevails there for the greater part of the year, every vessel would ascend by the use of sails, and the difficulties of that navigation would be reduced to a trifle. Considering what would be the utmost expence of transporting salt from New Orleans to Nashville, and considering that Nashville is 2 or 300 miles by water farther from New Orleans than some other parts of the territory, and presuming that a great share of the present expence may be saved by practicable improvements in the navigation of the Mississippi, we may readily conclude, that the mere freight of the luxuries of life must be a small object to the inhabitants of that territory. As matters are now circumstanced, the navigation of the Mississippi being free *, the settlers on Cumberland river can take their produce to a shipping port, at less expence than it can be waggoned 50 miles in any country.

As the country that has been described, is capable of producing, in great perfection, every article that grows in the atlantic states, there are no leading circumstances by which we can possibly determine what is likely to be the general course of its trade, or the particular articles in which its most valuable exports will consist. Iron, lead, pot-ash, pork, bacon, butter, cheese, corn, wheat, barley, flax, hemp, rice, indigo, and cotton, have all been mentioned by different persons from that country, as articles of export. Each of

* The treaty lately negotiated with Spain by Mr. Pinckney, contains such indisputable proofs of reciprocity and liberal sentiment, as cannot fail to beget and cherish confidence and affection in every citizen of the United States towards the spanish nation. Such effects of a treaty are more desirable, and perhaps more profitable to the conceding party, than those indignant sentiments that must rankle in the breast of every freeman, who considers himself oppressed by unequal terms, that might seem to be dictated by envy, or the pride of strength.

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those articles will doubtless be exported in a greater or less quantity, according to the demand; but it appears most probable, that the inhabitants will make their chief remittances in tobacco, hemp, rice, indigo, and cotton. The low grounds on the Mississippi must produce great crops of rice; and it has already been observed, that the high grounds near that river are particularly favourable to the culture of indigo and cotton. The article last mentioned must be a constant source of wealth to the planter, because its value is considerable when compared with its weight, and it must be in constant demand in foreign markets. It is hardly necessary to observe, that in a country where timber of the best and most durable quality, and all other materials abound, necessary for shipping, the inhabitants will doubtless build ships for a distant market.

By tracing the short lines which mark the indian boundary, we discover, that all the lands on Duck river and Elk river, as well as on the several rivers which run into the Mississippi, continue to be claimed by the Indians; and those lands are among the best in that country. It may be observed, at the same time, that all those lands are claimed by the Chickasaws, a small tribe of friendly Indians. We may be assured, that the government of the United States will not permit those lands to be settled, without the consent of the Indians; but we must discover that the natural progress of things, in a short time, will render a considerable part of that country, especially the lands on the Mississippi, useless to the Indians, and necessary to the whites. Numerous boatmen, passing up and down the river, will have frequent occasion to go on shore; they will need refreshments. Many who go down on rafts or boats, will return by land; they will destroy the game. In a word, every man who lives on the western waters must be interested in having settlements on the Mississippi. There can be little difficulty in making a bargain for a country that is of great use to the whites, and little use to the Indians. The true interest of the United States would point out a price for those lands, that would enable the Chickasaws to live in a degree of ease and affluence, which otherwise they can never expect. Suppose the Indians should cede all the lands to the northward of Wolf river; in that case, the amount of the North-Carolina grants being deducted, the United States will have at least six millions of acres of good land for sale. Lands of such a quality, and
so

so near the sea, will hardly be sold, even by the public, for less than one dollar the acre, while individuals are selling worse lands, in worse situations, for twice that price. Six millions of acres, at one dollar, would bring 6,000,000 dollars, by which a debt to that amount must be extinguished, and 360,000 dollars per annum saved to the national treasury. Suppose the twentieth part of the money thus saved, or 18,000 dollars, was paid annually to the Chickasaws, one half in corn, or other provisions, at a stipulated price, and the other half in clothing; is it not obvious that their condition would be greatly mended, and equally clear that the state of our finances would be much improved by such a regulation? It is true, that indian lands have commonly been obtained on terms much less profitable to the Indians, and more expensive to the whites; but it may be presumed that experience will teach us to forsake the old plan, since it is neither recommended by the dictates of humanity nor the rules of economy.

Such is the territory south of the Ohio. The eastern division, as we have observed, is composed of small mountains and vallies, which are extended in the direction of the rivers. There is no plain, or track of arable land, of any considerable width, in that settlement; but the vallies are generally fertile. In the great western division, there is not a single eminence or ridge, that claims the name of a mountain. This country, nevertheless, is sufficiently diversified by rising ground, and bears no resemblance to the continued plain, which is found near the coast, in the middle and southern states. The rich lands near Cumberland river are considerably broken by knobs or short hills; but those hills have lime-stone for their basis, and are fertile and fit for cultivation to the very top. Streams that run in opposite directions are uniformly divided by rising ground, and some of the ridges are considerably elevated; but they are generally covered with good soil, and are seldom too steep for the plough. There are two remarkable ridges, or broken tracts, in that country, of considerable dimensions, which are not included in the above description; for they are stony or barren in many places. The first of those ridges divides the waters of Cumberland river from those of the Tena see; it is broad as it approaches the foot of Cumberland mountain, or rather diversified in that part by alternate hills and plains; but the plains, being chiefly without timber, are called barrens. The second remarkable tract

tract of broken or barren land, begins near the mouth of Tenasee, dividing the waters of that river from those of the Mississippi, and extending southerly towards the Chickasaw towns. The small rivers that run into the Mississippi, have their heads in this ridge. It is, in some parts, above 20 miles broad, rising at the very margin of the Tenasee. It is covered with long grass, having little or no timber, except a small growth on the watercourses, which are numerous.

The territory west of Cumberland mountain has been stated at fifteen millions of acres; but this calculation leaves eight millions for the Holston settlement, which is certainly too much. The amount that may remain for sale on that side of the mountain, has, in round numbers, been stated at six millions; but the quantity, in all probability, will be considerably greater, without including the great tract of vacant land south of the Frenchbroad, nor the considerable tracts of arable land that are found in Cumberland mountain, nor those in the Cumberland barrens, so called, where the land, though without timber, is frequently very good; the Indians formerly, in burning the long grass, mult have destroyed the trees.

It is probable that all the lands to the northward of the great bend of the Tenasee, may hereafter be joined to those ceded by North-Carolina, so as to form one state; such a state would have a natural boundary; and when we consider that the Creeks and Chactaws live to the southward, who are numerous nations, together with the Chickasaws, we shall be apt to mark the latitude of the south bend, for a long series of years, as our southern boundary for the purpose of settlement.

The reader has been informed, that the soil, climate, and productions, of the country on the western waters, are different from those in the atlantic states; and it has been intimated, that the whole face of nature in that country bears a different appearance. Observations concerning things that are new or uncommon, should be made and received with caution; but the reader cannot fail to realize the narrative, if he takes the trouble of recollecting two or three remarkable facts, to which reference has already been had.

In the atlantic states, the strata of lime-stone are broken, and inclined considerably to the horizon, being, at a medium, nearly parallel to the axis of the earth. In the western

ern country, the strata are constantly found parallel to the horizon.

In the atlantic states, salt-springs are seldom or never found. In the western country they abound in every part.

In the atlantic states, pit-coal is very scarce, and is obtained with difficulty. In the western country, it is common, and frequently appears within a few feet of the surface.

One of those countries must have suffered prodigious convulsions; the other may be supposed to retain more of its original form. Is it at all surprising, that a country, so different in its structure, its appearance, and essential qualities, should produce more plentiful crops, or that it should engage a considerable degree of public attention?

A short description of the south-western territory, in a letter from a resident there, dated July 1795*.

THE territory of the United States, south of the river Ohio, is that tract of country situate between 35 and 36½ degrees north latitude, being bounded on the north by Kentucky, on the south by Georgia, on the east by North-Carolina, and on the west by the river Mississippi. It was originally part of North-Carolina, but was ceded to the United States in the year 1789; the Cumberland country and settlements are included in its limits, all together forming an extent of country of not less than 500 miles in length; its width about 105 miles.

The natural advantages which this temperate climate possesses, exceed those of any other part of the United States, or perhaps of the world. A circumstance peculiar to this country is, that the soil will yield all the productions common to both the northern and southern climates: here it is customary to see in the same field, or fields contiguous to each other, wheat, indian corn, rye, barley, rice, tobacco, hemp, indigo, cotton, and every kind of vegetable, growing to the greatest perfection. Persons who have seen this country, and who have been accustomed to the cultivation of vines, say that there is no doubt but that it will be extremely productive of wine, whenever it becomes sufficiently populated to make it proper to attend to that object; and it is probable that the time is not far distant, when population will have made such advances as to enable the people to at-

* From the Philadelphia gazette of Oct. 17, 1795.

tend to the raising those articles which will be most proper for exportation : it is generally well known with what rapidity the state of Kentucky has been peopled since it became an independent government. This territory has also taken steps to become a separate state, and will, in the course of a few months, be admitted into the union as a state, there being no doubt, from the prodigious emigration which has lately taken place, that under the constitution they will be entitled to become a separate state whenever they choose. The bounds of this letter do not admit of a detail of the many instances of the rapid population of this country : suffice it to say, that Knoxville, the present seat of the territorial government, not more than three years since was a wood, in which a blockhouse necessary to repel indian invasions was erected since ; which time, a town has grown up here, consisting of from 2 to 300 houses, inhabited by a great number of respectable families ; and although it is not more than two years since the Indians appeared at least 1000 strong before this town, such has since been the progress of population, that many wealthy and respectable families have now set down with the greatest safety from 30 to 40 miles nearer the indian boundary ; and it is already contemplated to remove the seat of government to a more central situation of the territory, 30 miles from Knoxville, on the banks of the Tena see. To a person who observes the migration to this country, it appears as if North and South Carolina, and Georgia, were emptying themselves into it. It is not unfrequent to see from 2 to 300 people in a body coming from those southern climates, oppressed with diseases, to revive and enjoy health in this salubrious air. From the northern states the emigration here has been little or none : the greater facility of removing families down the Ohio to Kentucky, is one reason of it ; and the intercourse of the inhabitants of it with the northern people being very small, and of course no opportunity of their becoming acquainted with its merits, is another ; but then there is no doubt that the south-western possesses many advantages over Kentucky, or the territory north-west of the Ohio. One advantage is the abundant supplies of water from the best springs, that are to be found dispersed all over the face of this country ; many of them large enough, at their very sources, to turn a mill constructed for the purposes of grinding or other manufactures. The circumstance of this being as well watered a country as any in the world, added to the general temperature of the air, are
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supposed to be the real causes of the inhabitants enjoying a greater degree of health, than in any other part of America.

So great are the natural advantages of water in this country, that it is asserted with truth, there is not a spot in it 20 miles distant from a boatable navigation, from whence the farmer, planter, or manufacturer, may with cheapness, safety, and ease, convey his different articles for foreign markets, down the great river Tenasee, or Cumberland, into the Ohio and Mississippi, and thence to New Orleans. The face of this country may be said to be generally irregular: except on the river bottoms, we find no land entirely level; but since lands have become valuable, and the most hilly parts, as well as the river bottoms, are peopling, the hills and worst-looking lands produce not less than 30 to 49 bushels of indian corn to the acre; and although the bottoms will produce more than double as much indian corn, the uplands are found best adapted to the growth of small grain; what time may do by reducing those lands, and thereby rendering them more fit for raising of wheat, rye, &c. is yet to be experienced; but little or no alteration has been discovered in the soil by a few years cultivation. This country cannot but be considered as offering a welcome to the emigrant; on his arrival in it, even in the most inclement season of the year, he can easily, with his own hands, let him be ever so bad an artificer, erect a building entirely sufficient to repel all the evils which are here felt from the weather: his cattle are supported from the spontaneous growth of the fields and woods, which afford an excellent range, even in the coldest season.

So great is the fertility of the soil, that the inhabitants with little labour raise thrice as much grain as supplies their families, and the balance is hospitably given up to the emigrant, or those who from accident have been deprived of sustenance. Here there is not the same necessity to secure yourself in your house from the invasion of the winds; for they are harmless, and do not possess the injurious qualities of those experienced in the atlantic states. Here are no sudden changes from heat to cold, effected by the different directions of the winds; but the inhabitants are equally secured from the cold chilling blasts of the north-west and north-east winds, as from the warm relaxing breezes of the south. The state of the air is only materially affected by the gradual approach or departure of the sun; in short, the
hand

hand of nature has placed its first blessings on this land, and proclaimed that, whoever be the inhabitants, they must be happy and independent. There is not a necessary, and but few luxuries of life, which cannot here be attained with ease. Salt, sugar, iron, lead, saltpetre, copperas, &c. abound everywhere. In this climate the system of nature seems to be in its highest vigour; and there is no necessary production of the earth, sea, or air, proper for the comfort of man, that is not found here.

The modes of getting titles to lands have been various here. At the time North-Carolina ceded to congress this territory, they reserved the right of still laying on its lands all warrants then issued, which warrants are now all appropriated; and as there is a great deal more land in this territory than they could cover, it is probable they have been laid on the best, particularly as there is scarcely any annoyance met with by the white people from the Indians; and the country has therefore been freely explored. For the lands on which the warrants have been laid, North-Carolina has issued patents agreeable to the cession act. Another mode lately adopted, of obtaining a prior claim to lands in this country, is by a survey and location, which, there is no doubt, will give a priority of entry in the United States' land office, when opened; which, I am told, will be the case at the next session of congress: and, if the form of the bill I have seen should be adopted, it will give a person in Philadelphia the same opportunity of confirming and completing a title to the lands under these surveys that the people resident in this country have. Another mode which has been supposed to secure a right to land is, that people have set down on the lands which they like best, that were not before appropriated, and expect to be allowed a right of pre-emption; but this is supposed to be the worst kind of claim, as they have never paid any consideration for them; and for the surveys and locations the surveyor general's and other fees have been paid.

The city of Columbia, the new capital of the state of South-Carolina, in America, is finished, and the seat of government has been removed there from Charleston. The new city of Raleigh, intended for the capital of the state of North-Carolina, is in great forwardness. The state edifices are all built, and the seat of government is shortly to be removed there from Newbern. The city of Louisville, the new capital of the state of Georgia, is completed. The legislature

gislature held their first session there last year. The city of Knoxville is appointed to be the capital of the new state of Tenasee.

Constitution of the state of Tenasee, unanimously established in convention at Knoxville, on the sixth day of February, 1796.

WE, the people of the territory of the United States south of the river Ohio, having the right of admission into the general government as a member state thereof, consistent with the constitution of the United States, and the act of cession of the state of North-Carolina, recognizing the ordinance for the government of the territory of the United States north-west of the river Ohio, do ordain and establish the following constitution, or form of government: and do mutually agree with each other to form ourselves into a free and independent state, by the name of the state of Tenasee.

ARTICLE I.

SECT. 1. The legislative authority of this state shall be vested in a general assembly, which shall consist of a senate and house of representatives, both dependent on the people.

SECT. 2. Within three years after the first meeting of the general assembly, and within every subsequent term of seven years, an enumeration of the taxable inhabitants shall be made in such manner as shall be directed by law; the number of representatives shall, at the several periods of making such enumeration, be fixed by the legislature, and apportioned among the several counties, according to the number of taxable inhabitants in each; and shall never be less than 22, nor greater than 26, until the number of taxable inhabitants be 40,000; and after that event, at such ratio that the whole number of representatives shall never exceed 40.

SECT. 3. The number of senators shall, at the several periods of making the enumeration before mentioned, be fixed by the legislature, and apportioned among the districts, formed as hereinafter directed, according to the number of taxable inhabitants in each, and shall never be less than one third, nor more than one half of the number of representatives.

SECT. 4. The senators shall be chosen by districts, to be
formed

formed by the legislature, each district containing such a number of taxable inhabitants, as shall be entitled to elect not more than three senators. When a district shall be composed of two or more counties, they shall be adjoining, and no county shall be divided in forming a district.

Sect. 5. The first election for senators and representatives shall commence on the second Thursday of March next, and shall continue for that and the succeeding day; and the next election shall commence on the first Thursday of August 1797, and shall continue on that and the succeeding day; and for ever after, elections shall be held once in two years, commencing on the first Thursday in August and terminating the succeeding day.

Sect. 6. The first session of the general assembly shall commence on the last Monday of March next; the second on the third Monday of September 1797: and for ever after, the general assembly shall meet on the third Monday of September next ensuing the then election, and at no other period, unless as provided for by this constitution.

Sect. 7. That no person shall be eligible to a seat in the general assembly unless he shall have resided three years in the state, and one year in the county immediately preceding the election, and shall possess in his own right in the county which he represents, not less than 200 acres of land, and shall have attained to the age of 21 years.

Sect. 8. The senate and house of representatives, when assembled, shall each choose a speaker and its other officers, be judges of the qualifications and elections of its members, and sit upon its own adjournments from day to day. Two thirds of each house shall constitute a quorum to do business; but a smaller number may adjourn from day to day, and may be authorised by law to compel the attendance of absent members.

Sect. 9. Each house may determine the rules of its proceedings, punish its members for disorderly behaviour, and with the concurrence of two thirds, expel a member, but not a second time for the same offence, and shall have all other powers necessary for the legislature of a free state.

Sect. 10. Senators and representatives shall in all cases, except treason, felony, or breach of the peace, be privileged from arrest during the session of the general assembly and in going to and returning from the same; and for any speech or debate in either house they shall not be questioned in any other place.

Sect. 11. Each house may punish, by imprisonment, during their session, any person, not a member, who shall be guilty of disrespect to the house, by any disorderly or contemptuous behaviour in their presence.

Sect. 12. When vacancies happen in either house, the governor for the time being shall issue writs of election to fill such vacancies.

Sect. 13. Neither house shall, during their session, adjourn without consent of the other, for more than three days, nor to any other place than that in which the two houses shall be sitting.

Sect. 14. Bills may originate in either house, but may be amended, altered, or rejected by the other.

Sect. 15. Every bill shall be read three times, on three different days in each house, and be signed by the respective speakers before it becomes a law.

Sect. 16. After a bill has been rejected, no bill containing the same substance, shall be passed into a law during the same session.

Sect. 17. The style of the laws of this state shall be, Be it enacted by the general assembly of the state of Tennessee.

Sect. 18. Each house shall keep a journal of its proceedings, and publish them, except such parts as the welfare of the state may require to be kept secret. And the yeas and nays of the members on any question, shall, at the request of any two of them, be entered on the journals.

Sect. 19. The doors of each house, and committees of the whole, shall be kept open, unless when the business shall be such as ought to be kept secret.

Sect. 20. The legislature of this state shall not allow the following officers of government greater annual salaries than as follows, until the year 1804; to wit,

The governor not more than 750 dollars.

The judges of the superior courts, not more than 600 dollars each.

The secretary not more than 400 dollars.

The treasurer or treasurers not more than four per cent. for receiving and paying out all monies.

The attorney or attorneys for the state shall receive a compensation for their services, not exceeding 50 dollars for each superior court which he shall attend.

No member of the legislature shall receive more than one dollar and 75 cents per day, nor more for every 25 miles he shall travel in going to and returning from the general assembly.

Sect.

Sect. 21. No money shall be drawn from the treasury, but in consequence of appropriations made by law.

Sect. 22. No person who heretofore hath been, or hereafter may be, a collector or holder of public monies, shall have a seat in either house of the general assembly, until such person shall have accounted for, and paid into the treasury, all sums for which he may be accountable or liable.

Sect. 23. No judge of any court of law or equity, secretary of state, attorney general, register, clerk of any court of record, or person holding any office under the authority of the United States, shall have a seat in the general assembly; nor shall any person, in this state, hold more than one lucrative office at one and the same time; provided, that no appointment in the militia or to the office of a justice of the peace, shall be considered as a lucrative office.

Sect. 24. No member of the general assembly shall be eligible to any office or place of trust, except to the office of a justice of the peace, or trustee of any literary institution, where the power of appointment to such office or place of trust is vested in their own body.

Sect. 25. Any member of either house of the general assembly shall have liberty to dissent from, and protest against, any act or resolve which he may think injurious to the public, or any individual, and have the reasons of his dissent entered on the journals.

Sect. 26. All lands liable to taxation in this state, held by deed, grant, or entry, shall be taxed equal and uniform, in such manner that no 100 acres shall be taxed higher than another, except town lots, which shall not be taxed higher than 200 acres of land each; no free man shall be taxed higher than 100 acres, and no slave higher than 200 acres on each poll.

Sect. 27. No article manufactured of the produce of this state, shall be taxed otherwise than to pay inspection fees.

ARTICLE II.

Sect. 1. The supreme executive power of this state shall be vested in a governor.

Sect. 2. The governor shall be chosen by the electors of the members of the general assembly, at the times and places where they shall respectively vote for the members thereof. The returns of every election for governor shall be sealed up, and transmitted to the seat of government, by the returning officers, directed to the speaker of the
M m 2 senate,

senate, who shall open and publish them in the presence of a majority of the members of each house of the general assembly. The person having the highest number of votes shall be governor; but if two or more shall be equal, and highest in votes, one of them shall be chosen governor by joint ballot of both houses of the general assembly. Contested elections for governor shall be determined by both houses of the general assembly, in such manner as shall be prescribed by law.

Sect. 3. He shall be at least 25 years of age, and possess a freehold estate of 500 acres of land, and have been a citizen or inhabitant of this state four years next before his election, unless he shall have been absent on the public business of the United States, or of this state.

Sect. 4. The first governor shall hold his office until the fourth Tuesday of September 1797, and until another governor shall be elected and qualified to office; and for ever after, the governor shall hold his office for the term of two years, and until another governor shall be elected and qualified; but shall not be eligible more than six years in any term of eight.

Sect. 5. He shall be commander in chief of the army and navy of this state, and of the militia, except when they shall be called into the service of the United States.

Sect. 6. He shall have power to grant reprieves and pardons, after conviction, except in cases of impeachment.

Sect. 7. He shall, at stated times, receive a compensation for his services, which shall not be increased or diminished during the period for which he shall have been elected.

Sect. 8. He may require information, in writing, from the officers in the executive department, upon any subject relating to the duties of their respective offices.

Sect. 9. He may, on extraordinary occasions, convene the general assembly by proclamation, and shall state to them, when assembled, the purpose for which they shall have been convened.

Sect. 10. He shall take care that the laws shall be faithfully executed.

Sect. 11. He shall, from time to time, give to the general assembly information of the state of the government, and recommend to their consideration such measures as he shall judge expedient.

Sect. 12. In case of his death, or resignation, or removal from office, the speaker of the senate shall exercise the
office

office of governor until another governor shall be duly qualified.

Sect. 13. No member of congress, or person holding any office under the United States, or this state, shall execute the office of governor.

Sect. 14. When any officer, the right of whose appointment is by this constitution vested in the general assembly, shall, during the recess, die, or his office by other means become vacant, the governor shall have power to fill up such vacancy by granting a temporary commission, which shall expire at the end of the next session of the legislature.

Sect. 15. There shall be a seal of this state which shall be kept by the governor, and used by him officially, and shall be called the great seal of the state of Tennessee.

Sect. 16. All grants and commissions shall be in the name and by the authority of the state of Tennessee, be sealed with the state seal, and signed by the governor.

Sect. 17. A secretary of this state shall be appointed and commissioned during the term of four years. He shall keep a fair register of all the official acts and proceedings of the governor; and shall, when required, lay the same, and all papers, minutes, and vouchers, relative thereto, before the general assembly, and shall perform such other duties as shall be enjoined him by law.

ARTICLE III.

Sect. 1. Every freeman of the age of 21 years and upwards, possessing a freehold in the county wherein he may vote, and being an inhabitant of this state, and every free man, being an inhabitant of any one county in the state six months immediately preceding the day of election, shall be entitled to vote for members of the general assembly, for the county in which he shall reside.

Sect. 2. Electors shall in all cases, except treason, felony, or breach of the peace, be privileged from arrest during their attendance at elections, and in going to and returning from them.

Sect. 3. All elections shall be by ballot.

ARTICLE IV.

Sect. 1. The house of representatives shall have the sole power of impeachment.

Sect. 2. All impeachments shall be tried by the senate. When sitting for that purpose, the senators shall be upon oath or affirmation.

Sect. 3. No person shall be convicted, without the concurrence of two thirds of the members of the whole house.

Sect. 4. The governor, and all civil officers under this state, shall be liable to impeachment for any misdemeanour in office; but judgment, in such cases, shall not extend further than to removal from office, and disqualification to hold any office of honour, trust, or profit, under this state. The party shall, nevertheless, in all cases be liable to indictment, trial, judgment, and punishment, according to law.

ARTICLE V.

Sect. 1. The judicial power of the state shall be vested in such superior and inferior courts of law and equity, as the legislature shall, from time to time, direct and establish.

Sect. 2. The general assembly shall by joint ballot of both houses appoint judges of the several courts of law and equity, also an attorney or attorneys for the state, who shall hold their respective offices during good behaviour.

Sect. 3. The judges of the superior court shall, at stated times, receive a compensation for their services, to be ascertained by law; but shall not be allowed any fees or perquisites of office, nor shall they hold any other office of trust or profit under this state, or the United States.

Sect. 4. The judges of the superior courts shall be justices of oyer and terminer and general gaol delivery, throughout the state.

Sect. 5. The judges of the superior and inferior courts shall not charge juries with respect to matters of fact, but may state the testimony and declare the law.

Sect. 6. The judges of the superior courts shall have power, in all civil cases, to issue writs of certiorari, to remove any cause, or a transcript thereof, from any inferior court of record into the superior, on sufficient cause supported by oath or affirmation.

Sect. 7. The judges or justices of the inferior courts of law, shall have power, in all civil cases, to issue writs of certiorari, to remove any cause, or a transcript thereof, from any inferior jurisdiction into their court, on sufficient cause, supported by oath or affirmation.

Sect. 8. No judge shall sit on the trial of any cause where the parties shall be connected with him by affinity or consanguinity, except by consent of parties. In case all the judges of the superior court shall be interested in the event of any cause, or related to all or either of the parties, the
governor

governor of the state shall in such case specially commission three men, of law knowledge, for the determination thereof.

Sect. 9. All writs and other process shall run, In the name of the state of Tenafee; and bear test, and be signed by the respective clerks. Indictments shall conclude, Against the peace and dignity of the state.

Sect. 10. Each court shall appoint its own clerk, who may hold his office during good behaviour.

Sect. 11. No fine shall be laid on any citizen of this state, that shall exceed 50 dollars, unless it shall be assessed by a jury of his peers, who shall assess the fine at the time they find the fact, if they find the fine ought to be more than 50 dollars.

Sect. 12. There shall be justices of the peace appointed for each county, not exceeding two for each captain's company, except for the company which includes the county town, which shall not exceed three, who shall hold their offices during good behaviour.

ARTICLE VI.

Sect. 1. There shall be appointed in each county, by the county court, one sheriff, one coroner, one trustee, and a sufficient number of constables, who shall hold their offices for two years. They shall also have power to appoint one register and ranger for the county, who shall hold their offices during good behaviour. The sheriff and coroner shall be commissioned by the governor.

Sect. 2. There shall be a treasurer or treasurers appointed for the state, who shall hold his or their offices for two years.

Sect. 3. The appointment of all officers not otherwise directed by this constitution, shall be vested in the legislature.

ARTICLE VII.

Sect. 1. Captains, subalterns, and non-commissioned officers, shall be elected by those citizens in their respective districts who are subject to military duty.

Sect. 2. All field-officers of the militia shall be elected by those citizens in their respective counties who are subject to military duty.

Sect. 3. Brigadiers-general shall be elected by the field-officer of their respective brigades.

Sect. 4. Majors-general shall be elected by the brigadiers and field-officers of the respective divisions.

Sect. 5. The governor shall appoint the adjutant-general; the majors-general shall appoint their aids; the brigadiers-general shall appoint their brigade majors, and the commanding officers of regiments their adjutants and quarter-masters.

Sect. 6. The captains and the subalterns of the cavalry shall be appointed by the troops enrolled in their respective companies; and the field-officers of the district shall be appointed by the said captains and subalterns; provided, that whenever any new county is laid off, the field-officers of the said cavalry shall appoint the captain and other officers therein, *pro tempore*, until the company is filled up and completed, at which time the election of the captains and subalterns shall take place as aforesaid.

Sect. 7. The legislature shall pass laws, exempting citizens belonging to any sect or denomination of religion, the tenets of which are known to be opposed to the bearing of arms, from attending private and general musters.

ARTICLE VIII.

Sect. 1. Whereas the ministers of the gospel are, by their professions, dedicated to God and the care of souls, and ought not to be diverted from the great duties of their functions; therefore no minister of the gospel, or priest of any denomination whatever, shall be eligible to a seat in either house of the legislature.

Sect. 2. No person who denies the being of God, or a future state of rewards and punishments, shall hold any office in the civil department of this state.

ARTICLE IX.

Sect. 1. That every person, who shall be chosen or appointed to any office of trust or profit, shall, before entering on the execution thereof, take an oath to support the constitution of this state, and also an oath of office.

Sect. 2. That each member of the senate and house of representatives shall, before they proceed to business, take an oath or affirmation to support the constitution of this state, and also the following oath:

"I A. B. do solemnly swear (or affirm) that, as a member of this general assembly, I will in all appointments vote without favour, affection, partiality, or prejudice; and that I will not propose or assent to any bill, vote, or resolution, which shall appear to me injurious to the people, or consent

sent to any act or thing whatever, that shall have a tendency to lessen or abridge their rights and privileges, as declared by the constitution of this state."

Sect. 3. Any elector who shall receive any gift or reward for his vote, in meat, drink, money, or otherwise, shall suffer such punishment as the laws shall direct. And any person who shall directly or indirectly give, promise, or bestow any such reward to be elected, shall thereby be rendered incapable, for two years, to serve in the office for which he was elected, and be subject to such further punishment as the legislature shall direct.

Sect. 4. No new county shall be established by the general assembly, which shall reduce the county or counties, or either of them, from which it shall be taken, to a less content than 625 square miles. Nor shall any new county be laid off, of less contents. All new counties, as to the right of suffrage and representation, shall be considered as a part of the county or counties from which it was taken, until entitled by numbers to the right of representation. No bill shall be passed into a law, for the establishment of a new county, except upon a petition to the general assembly for that purpose, signed by 200 of the free male inhabitants within the limits or bounds of such new county prayed to be laid off.

ARTICLE X.

Sect. 1. Knoxville shall be the seat of government, until the year 1802.

Sect. 2. All laws and ordinances now in force and use in this territory, not inconsistent with this constitution, shall continue to be in force and use in this state, until they shall expire, be altered, or repealed by the legislature.

Sect. 3. That whenever two thirds of the general assembly shall think it necessary to amend or change this constitution, they shall recommend to the electors, at the next election for members to the general assembly, to vote for or against a convention; and if it shall appear that a majority of all the citizens of the state, voting for representatives, have voted for a convention, the general assembly shall, at their next session, call a convention, to consist of as many members as there be in the general assembly, to be chosen in the same manner, at the same place, and by the same electors that chose the general assembly, who shall meet within three months after the said election, for the purpose of revising, amending, or changing the constitution.

Sect.

Sect. 4. The declaration of rights hereto annexed, is declared to be a part of the constitution of this state, and shall never be violated on any pretence whatever. And to guard against transgressions of the high powers which we have delegated, we declare, that every thing in the bill of rights contained, and every other right not hereby delegated, is excepted out of the general powers of government, and shall for ever remain inviolate.

ARTICLE XI.

Declaration of rights.

I. That all power is inherent in the people, and all free governments are founded on their authority, and instituted for their peace, safety, and happiness: for the advancement of those ends, they have at all times an unalienable and indefeasible right to alter, reform, or abolish the government in such manner as they may think proper.

II. That government being instituted for the common benefit, the doctrine of non-resistance against arbitrary power and oppression is absurd, slavish, and destructive to the good and happiness of mankind.

III. That all men have a natural and indefeasible right to worship Almighty God according to the dictates of their own consciences; that no man can of right be compelled to attend, erect, or support any place of worship, or to maintain any ministry against his consent; that no human authority can in any case whatever control or interfere with the rights of conscience; and that no preference shall ever be given by law to any religious establishments or modes of worship.

IV. That no religious test shall ever be required as a qualification to any office or public trust under this state.

V. That election shall be free and equal.

VI. That the right of trial by jury shall remain inviolate.

VII. That the people shall be secure in their persons, houses, papers, and possessions, from unreasonable searches and seizures; and that general warrants, whereby an officer may be commanded to search suspected places, without evidence of the fact committed, or to seize any person or persons not named, whose offences are not particularly described and supported by evidence, are dangerous to liberty, and ought not to be granted.

VIII. That no freeman shall be taken, or imprisoned, or dis seized of his freehold, liberties or privileges, or outlawed,

or

or exiled, or in any manner destroyed, or deprived of his life, liberty, or property, but by the judgment of his peers, or the law of the land.

IX. That in all criminal prosecutions the accused hath a right to be heard by himself and his counsel, to demand the nature and cause of the accusation against him, and to have a copy thereof; to meet the witnesses face to face; to have compulsory process for obtaining witnesses in his favour; and in prosecutions by indictment, or presentment, a speedy public trial, by an impartial jury of the county or district in which the crime shall have been committed; and shall not be compelled to give evidence against himself.

X. That no person shall, for the same offence, be twice put in jeopardy of life or limb.

XI. That laws made for the punishment of facts committed previous to the existence of such laws, and by them only made criminal, are contrary to the principles of a free government; wherefore no ex post facto law shall be made.

XII. That no conviction shall work corruption of blood or forfeiture of estate.—The estate of such persons as shall destroy their own lives, shall descend or vest as in case of natural death. If any person be killed by casualty, there shall be no forfeiture in consequence thereof.

XIII. That no person arrested, or confined in gaol, shall be treated with unnecessary rigour.

XIV. That no freeman shall be put to answer any criminal charge, but by presentment, indictment, or impeachment.

XV. That all prisoners shall be bailable by sufficient sureties, unless for capital offences, when the proof is evident or the presumption great. And the privilege of the writ of habeas corpus shall not be suspended, unless when in case of rebellion or invasion the public safety may require it.

XVI. That excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.

XVII. That all courts shall be open; and every man, for an injury done him in his lands, goods, person, or reputation, shall have remedy by due course of law, and right and justice administered without sale, denial, or delay. Suits may be brought against the state in such a manner, and in such courts, as the legislature may by law direct, provided
the

the right of bringing suit be limited to the citizens of this state.

XVII. That the person of a debtor, where there is not strong presumption of fraud, shall not be continued in prison, after delivering up his estate for the benefit of his creditor or creditors, in such manner as shall be prescribed by law.

XIX. That the printing-presses shall be free to every person who undertakes to examine the proceedings of the legislature, or of any branch or officer of government; and no law shall ever be made to restrain the right thereof. The free communication of thoughts and opinions, is one of the invaluable rights of man; and every citizen may freely speak, write, and print on any subject, being responsible for the abuse of that liberty. But in prosecutions for the publication of papers investigating the official conduct of officers or men in public capacity, the truth thereof may be given in evidence; and in all indictments for libels, the jury shall have a right to determine the law and the facts, under the direction of the court, as in other cases.

XX. That no retrospective law, or law impairing the obligation of contracts, shall be made.

XXI. That no man's particular services shall be demanded, or property taken, or applied to public use, without the consent of his representatives, or without just compensation being made therefor.

XXII. That the citizens have a right, in a peaceable manner, to assemble together for their common good, to instruct their representatives, and to apply to those invested with the powers of government for redress of grievances, or other proper purposes, by address or remonstrance.

XXIII. That perpetuities and monopolies are contrary to the genius of a free state, and shall not be allowed.

XXIV. That the sure and certain defence of a free people is a well-regulated militia; and as standing armies, in time of peace, are dangerous to freedom, they ought to be avoided, as far as the circumstances and safety of the community will admit; and that in all cases the military shall be in strict subordination to the civil authority.

XXV. That no citizen in this state, except such as are employed in the army of the United States, or militia in actual service, shall be subject to corporeal punishment under the martial law.

XXVI. That the freemen of this state have a right to keep and to bear arms for their common defence.

XXVII. That no soldier shall, in time of peace, be quartered in any house without consent of the owner, nor in time of war, but in a manner prescribed by law.

XXVIII. That no citizen of this state shall be compelled to bear arms, provided he will pay an equivalent, to be ascertained by law.

XXIX. That an equal participation of the free navigation of the Mississippi is one of the inherent rights of the citizens of this state: it cannot therefore be conceded to any prince, potentate, power, person or persons whatever.

XXX. That no hereditary emoluments, privileges, or honours, shall ever be granted or conferred in this state.

XXXI. That the people residing south of Frenchbroad and Holston, between the rivers Tenasee and the Big pigeon, are entitled to the right of pre-emption and occupancy in that tract.

XXXII. That the limits and boundaries of this state be ascertained, it is declared they are as hereafter mentioned; that is to say:—Beginning on the extreme height of Stone mountain, at the place where the line of Virginia intersects it, in latitude 36° and $30'$ north; running thence along the extreme height of the said mountain, to the place where Watauga river breaks through it; thence a direct course to the top of the Yellow mountain, where Bright's road crosses the same; thence along the ridge of said mountain, between the waters of Doe river and the waters of Rock creek, to the place where the road crosses the Iron mountain; from thence along the extreme height of said mountain to where Nolachucky river runs through the same; thence to the top of the Bald mountain; thence along the extreme height of said mountain to the Painted rock, on Frenchbroad river; thence along the highest ridge of said mountain, to the place where it is called the Great iron or Smoky mountain; thence along the extreme height of said mountain to the place where it is called Unicoi or Unica mountain, between the indian towns of Cowee and Old Chota; thence along the main ridge of the said mountain to the southern boundary of this state, as described in the act of cession of North-Carolina to the United States of America; and that all the territory, lands, and waters lying west of the said line, as before mentioned, and contained within

within the chartered limits of the state of North-Carolina, are within the boundaries and limits of this state, over which the people have the right of exercising sovereignty and right of soil so far as is consistent with the constitution of the United States, recognizing the articles of confederation, the bill of rights and constitution of North-Carolina, the cession act of the said state, and the ordinance of the late congress for the government of the territory north-west of the Ohio; provided nothing herein contained shall extend to affect the claim or claims of individuals to any part of the soil which is recognized to them by the afore said cession act.

SCHEDULE.

Se^{ct}. 1. That no inconvenience may arise from a change of the temporary to a permanent state government, it is declared, that all rights, actions, prosecutions, claims, and contracts, as well of individuals as of bodies corporate, shall continue, as if no change had taken place in the administration of government.

Se^{ct}. 2. All fines, penalties, and forfeitures, due and owing to the territory of the United States of America south of the river Ohio, shall enure to the use of the state. All bonds for performance, executed to the governor of the said territory, shall be and pass over to the governor of this state, and his successors in office, for the use of the state, or by him or them respectively to be assigned over to the use of those concerned, as the case may be.

Se^{ct}. 3. The governor, secretary, judges and brigadier-general, have a right, by virtue of their appointments, under the authority of the United States, to continue in the exercise of the duties of their respective offices, in their several departments, until the said officers are superseded under the authority of this constitution.

Se^{ct}. 4. All officers, civil and military, who have been appointed by the governor, shall continue to exercise their respective offices until the second Monday in June, and until successors in office shall be appointed under the authority of this constitution, and duly qualified.

Se^{ct}. 5. The governor shall make use of his private seal, until a state seal shall be provided.

Se^{ct}. 6. Until the first enumeration shall be made, as directed in the second section of the first article of this constitution, the several counties shall be respectively entitled

titled to elect one ſenator and two representatives, provided that no new county ſhall be entitled to ſeparate representation previous to taking the enumeration.

ſect. 7. That the next election for representatives and other officers to be held for the county of Tenaſſee, ſhall be held at the houſe of William Miles.

ſect. 8. Until a land office ſhall be opened, ſo as to enable the inhabitants ſouth of Frenchbroad and Holſton, between the rivers Tenaſſee and Big pigeon, to obtain titles upon the claims of occupancy and pre-emption, thoſe who hold land by virtue of ſuch claims, ſhall be eligible to ſerve in all capacities, where a freehold is by this conſtitution made a requiſite qualification.

Done in convention at Knoxville, by unanimous conſent, on the ſixth day of February, in the year of our Lord one thouſand ſeven hundred and ninety-fix, and of the independence of the United States of America the twentieth.—In teſtimony whereof we have hereunto ſubſcribed our names.

WILLIAM BLOUNT, preſident.

BLOUNT COUNTY.—David Craig, James Greenway, Joſeph Black, James Houſton, Samuel Glaſs.

SULLIVAN COUNTY.—George Rutledge, William C. C. Clairborne, Richard Gammon, John Shelby, jun. John Rhea.

DAVIDSON COUNTY.—John M'Nairy, Andrew Jackſon, James Robertſon, Thomas Hardiman, Joel Lewis.

GREENE COUNTY.—Samuel Frazier, Stephen Brooks, William Rankin, Eliſha Baker, John Galbreath.

HAWKINS COUNTY.—James Berry, Joſeph M'Min, Thomas Henderſon, William Cocke, Richard Mitchell.

JEFFERSON COUNTY.—Alexander Outlaw, Joſeph Anderſon, George Doherty, James Roddye, Archibald Roane.

KNOX COUNTY.—James White, Charles M'Clung, John Crawford, John Adair.

SUMMER COUNTY.—David Shelby, Iſaac Walton, W. Douglaſs, Edward Douglaſs, Daniel Smith.

SEVIER COUNTY.—Peter Bryan, Samuel Wier, Spencer Clack, John Clack, Thomas Buckenham.

TENAſſEE COUNTY.—Thomas Johnſton, James Ford, William Fort, William Prince, Robert Prince.

WASHINGTON COUNTY.—John Tipton, Samuel Handley, Leeroy Taylor, Landon Carter, James Stuart.

Atteſt, William Maclin, ſecretary.

No. VI.

An act for establishing Knoxville on the north bank of the Holston, and immediately below the second creek that runs into Holston on the north side, below the mouth of Frenchbroad river, and for appointing commissioners for the regulation thereof.

WHEREAS in the year 1791 it was found expedient to establish a town on the north bank of Holston, immediately below the second creek that runs into the north side of the same, below the mouth of Frenchbroad, governor Blount having determined to fix the seat of government on the said spot: and whereas a town was accordingly laid out by James White at the above described place, and called Knoxville, in honour of major-general Henry Knox, consisting of the necessary streets and 64 lots, numbered from one to 64, as will more fully appear, reference being had to the plat of said town:

Sect. 1. Be it enacted by the governor, legislative council and house of representatives of the territory of the United States of America, south of the river Ohio, that a town be established on the above described spot of ground, which shall continue to be known as heretofore by the name of Knoxville, in honour of major-general Knox, consisting of the necessary streets and 64 lots, from number one to 64, agreeable to the plan of the said town made in the year 1791.

Sect. 2. And be it enacted, that colonel James King, John Chisholm, and Joseph Greer, esqrs. George Roulstone, and Samuel Cowandee, &c. are hereby appointed commissioners of the said town, with power to regulate the same, and if necessary, with the consent of the proprietor, to enlarge it.

Sect. 3. And be it enacted, that a correct plan of the said town, as originally laid off, in the year 1791, be made by the said commissioners, and lodged in the office of the register of the county of Knox, for the benefit of all persons concerned, with their names, as commissioners, subscribed thereto; and that it be the duty of the said commissioners to designate the first and second corners by the fixture of a stone or stones at each corner, at least 18 inches in the
ground,

ground, and fix above, and to use good care that the same be not removed or defaced.

(Signed) William Blount, governor.
Griffith Rutherford, P. L. C.
David Wilson, S. H. R.

Prices current at Knoxville.

			Cents.
CORN, per bushel	-	-	25 to 33 1-3
Wheat, per ditto	-	-	66 2-3 to 75
Rye, per ditto	-	-	41 1-3
Oats, per ditto	-	-	33 1-3
Barley (but little sowed)	-	-	50
Potatoes, per bushel	-	-	33 1-3
Beef, per 100 pound	-	-	2, 50
Pork, per 100 pound	-	-	3, 33 1-3
Venison hams dried, each	-	-	16 2-3
Butter, per pound	-	-	8 1-3
Cheese, per pound	-	-	8 1-3
Bacon, per pound	-	-	8 1-3
Bar iron, per 100 lb.	-	-	8, 33 1-3
Castings, per 100 lb.	-	-	7
Whiskey, per gallon	-	-	50

Prices current at Nashville.

Corn, per bushel	-	-	16 2-3
Oats, wheat, and rye, the same as at Knoxville.			
Potatoes, per bushel	-	-	33 1-3
Beef, per 100 lb.	-	-	2
Pork, per ditto	-	-	3
Butter, cheese, and bacon, the same as at Knoxville.			
Bar iron, per pound	-	-	16 2-3
Castings, per pound	-	-	16 2-3
Whiskey, per gallon	-	-	1, to 75

Knoxville, June 4, 1795.

Only one iron ore bank has yet been discovered upon the waters of Cumberland, and I have heard of but one in Kentucky.

* * * One hundred cents make one dollar.

No. VII.

Report of Mr. secretary Hamilton on opening his budget.

	Dollars.	Cents.
The whole of the civil list for 1794 is	397,201	6
Extraordinary for public works, bene- } volencies, &c.	147,693	43
Estimate of the war expences for 1794	1,457,936	1
	<u>2,002,830</u>	<u>56</u>
Of this		

	Dollars.
The compensation to president Washington is	25,000
- - - - the vice-president	5000
- - - - chief justice	4000
- - - - five associate judges, each	3500
- - - - speaker of the congress per day	12
- - - - members (134), per day	6
- - - - secretary of the treasury, per ann.	3300
- - - - treasurer	2400
- - - - auditor of the treasury	2400
- - - - secretary of state	3500
- - - - secretary at war	3000

No. VIII.

An act for establishing trading-houses with the Indian Tribes.

SECT. I. **BE** it enacted by the senate and house of representatives of the United States of America, in congress assembled, That it shall be lawful for the president of the United States to establish trading-houses at such posts and places on the western and southern frontiers, or in the indian country, as he shall judge most convenient for the purpose of carrying on a liberal trade with the several indian nations within the limits of the United States.

SECT.

SECT. 2. And be it further enacted, That the president be authorized to appoint an agent for each trading-house established, whose duty it shall be to receive, and dispose of in trade with the indian nations afore mentioned, such goods as he shall be directed by the president of the United States to receive and dispose of, as afore said, according to the rules and orders which the president shall prescribe; and every such agent shall take an oath or affirmation, faithfully to execute the trust committed to him; and that he will not, directly or indirectly, be concerned or interested in any trade, commerce, or barter, with any Indian or Indians whatever, but on the public account: and shall also give bond with sufficient security in such sum as the president of the United States shall direct, truly and honestly to account for all the money, goods, and other property whatever, which shall come into his hands, or for which, in good faith, he ought so to account, and to perform all the duties required of him by this act; and his accounts shall be made up half-yearly, and transmitted to the secretary of the treasury of the United States.

SECT. 3. And be it further enacted, That the agents, their clerks, or other persons employed by them, shall not be, directly or indirectly, concerned or interested in carrying on the business of trade or commerce, on their own, or any other than the public account, or take or apply to his or their own use, any emolument or gain for negotiating or transacting any business or trade, during their agency or employment, other than is provided by this act: and if any such person shall offend against any of the prohibitions afore said, he or they shall be deemed guilty of a misdemeanour; and shall, upon conviction thereof, forfeit to the United States a sum not exceeding one thousand dollars, and shall be removed from such agency or employment, and for ever thereafter be incapable of holding any office under the United States: provided, that if any other person than a public prosecutor shall give information of any such offence, upon which a prosecution and conviction shall be had, one half the afore said penalty, when received, shall be for the use of the person giving such information.

SECT. 4. And be it further enacted, That the prices of the goods supplied to, and to be paid for by the Indians, shall be regulated in such manner, that the capital stock furnished by the United States may not be diminished.

SECT. 5. Be it further enacted, That during the continuance of this act, the president of the United States be,

and he is hereby authorized to draw annually from the treasury of the United States, a sum not exceeding 8000 dollars, to be applied, under his direction, for the purpose of paying the agents and clerks; which agents shall be allowed to draw out of the public supplies, two rations each, and each clerk one ration per day.

Sect. 6. And be it further enacted, That 150,000 dollars, exclusive of the allowances to agents and clerks, be, and they are hereby appropriated for the purpose of carrying on trade and intercourse with the indian nations, in the manner afore mentioned, to be paid out of any monies unappropriated in the treasury of the United States.

Sect. 7. And be it further enacted, That if any agent or agents, their clerks, or other persons employed by them, shall purchase, or receive of any Indian, in the way of trade or barter, a gun or other article commonly used in hunting; any instrument of husbandry, or cooking utensil, of the kind usually obtained by Indians in their intercourse with white people; any article of clothing (except skins or furs); he or they shall respectively forfeit the sum of 100 dollars for each offence, to be recovered by action of debt, in the name and to the use of the United States, in any court of law of the United States, or of any particular state having jurisdiction in like cases, or in the supreme or superior courts of the territories of the United States: provided, that no fair shall be commenced except in the state or territory within which the cause of action shall have arisen, or the defendant may reside: and it shall be the duty of the superintendants of indian affairs and their deputies respectively, to whom information of every such offence shall be given, to collect the requisite evidence, if attainable, and to prosecute the offender without delay.

Sect. 8. And be it further enacted, That this act shall be in force for the term of two years, and to the end of the next session of congress hereafter, and no longer.

Jonathan Dayton, speaker of the house of representatives.

John Adams, vice-president of the United States, and president of the senate.

Approved—

April the 18th, 1796.

G^o. Washington, president of the United States.

Deposited among the rolls, in the office of the department of state.

Timothy Pickering, secretary of state.

Lexington, Kentucky, Feb. 2, 1796.

BY various parties who have been in the woods hunting, we learn that the Indians, who are now out on our frontiers, are friendly, and appear very happy in meeting with the white people, and rendering them any service they possibly can.

In many of the frontier towns in this state, the Indians have already come in with their furs and peltry, in order to exchange them for articles which they are in want of; they are well treated by our inhabitants, and say, that they receive our commodities on better terms than they have been accustomed to from the british traders,

No. IX.

A letter from Lexington, Kentucky, contains the following particulars.

SIR,

Saturday morning, 30th Jan. 1796.

PERHAPS the inhabitants of Kentucky never experienced a feverer frost than last night. After repeated observations this season, I find this morning colder ten degrees than any morning this winter. At nine, I hung the thermometer in open air, and in 15 minutes the mercury fell 20° to 0.

James H. Stewart.

Thomas Love.

No. X.

Observations on the present situation of landed property in America.

January, 1792.

THERE exists at the present crisis, the means of employing money to greater advantage, and upon principles (when facts are known) more obviously secure than has occurred at any former period, in any country in the world. It is by the purchase of lands in America.

N n 3

Specu-

Speculations of this sort have not generally attracted the notice of monied men; particularly in Great Britain, for the following obvious reasons:

First, certain prejudices have existed, and do still exist, against the american people, the american government, and consequently against every species of property in that country.

Secondly, the distance from Europe is so great, and the means of obtaining good and accurate information has been supposed to be so deficient, that a general distrust has prevailed.

It is however owing to these prejudices, and to this distrust, that these immense advantages are to be obtained; because they are only accessible to those individuals whose minds are capable of discriminating facts through the gloom of prejudice, and whose pecuniary resources are equal in all respects to the object of seizing the advantages which the peculiar state of America now offers.

The facts are these following; and they are so well authenticated and ascertained, as not to admit even of the shadow of a doubt.

First, that the new government of America is not only firmly established, but that it has given the utmost energy and effect to every thing that can beget confidence at home and abroad, while its public measures have greatly promoted the general prosperity of the country.

Secondly, that as a proof of this, the public funds have advanced in a ratio beyond all former example, in any country in the world, in so short a period. A fund is established for the payment of the interest in specie, at the rate of six per cent. per annum, and the creditors of the state are rendered secure in the existence of a surplus revenue, which must sink the capital in a shorter time than can be well conceived, in consequence of the unexampled rapid population of the country.

Thirdly, that the general expenditure of government is regularly discharged, independent of the fund for paying the interest of the national debt, which interest is now paid regularly in specie every quarter.

Fourthly, that in consequence of an accurate enumeration, or census, which has been made of the whole people of the United States, it appears that they have nearly doubled within the last 20 years, notwithstanding the war; for the
returns

returns which have been made in the year 1791, prove, that the whole inhabitants nearly amount to 4,000,000 of souls!

Fifthly, that it also appears, from accurate returns made by the different officers of the customs to the secretary to the treasury in America, that the value of american exports amounted in one year and one month, ending in September 1790, to 20,415,966 dollars, rating the said exports at their original cost, which in sterling money, at 4s. 6d. to the dollar, amounts to 4,093,592l. 7s.—an increase even more rapid than the population. It also appears, that nearly one half of the value of these exports were sent to the dominions of Great Britain.

Sixthly, that the most incontestable evidence now exists, that the government of America is as strong and efficient as any in Europe; that the laws under the new constitution are acquiring energy every hour; that justice is impartially administered, and the executive power lodged in the hands of men who hold the first rank in point of virtue and integrity, joined to great and acknowledged abilities.

Under all these circumstances, not a doubt can be entertained of a most rapid rise in the population of America, and consequently of the value of the landed property in that country, which must keep pace with the funds, and with the general increase of active capital, which will naturally arise from the progressive prosperity of the country, aided by the foreign speculations in the funds, and perhaps still more assisted by the operations and effects of the national bank, lately established, which cannot fail to give a spring to human labour, in facilitating the increase of agriculture, and consequently of riches, in a country so full of resources.

Independent of the vast population of America, which increases in geometrical proportion, the present state of the continent of Europe affords the most solid reason to conclude, that the emigrations from thence, which have been in progress for the last five years, will gradually increase more and more, and that of course, in 20 years, the United States must contain above 8 millions of people;

In 40 years, by the same rule, the } 16 millions;
numbers must advance to

In 60 years it is highly probable } 30 millions;
that the population will in-
crease to —

and so on, doubling every 20 years; for while there is room enough, and abundance of lands, in-general far more fertile than those which have been heretofore occupied on the sea-side, no check can be given to population. No person is jealous of another, because there is room enough for every body. And no man is afraid to marry, because there is a certain obvious resource for maintaining a family comfortably, with moderate industry; and not only so, but also for providing for children, very amply, when they arrive at maturity, arising from the cheapness of land, and the vast produce of the soil, enabling the farmer to raise corn and cattle, at a small expence, in comparison to what must be incurred in Europe.

For these obvious reasons, America must advance in riches as population advances; and as the wealth of the country depends entirely on the surplus produce of the soil, there appears at present, as far as human penetration can discover, a greater probability of that country enjoying an uninterrupted course of prosperity than any country in the world. It is scarce possible, in the nature of things, that it can retrograde. The progress of wealth may not be so rapid as in the great commercial countries in Europe: but it must be regular and sure; and various resources of the country, which have yet scarce been found out, will press forward as adventitious aids, in rendering the revenue secure, and in reducing the taxes below what are paid in any country in the universe.

Among these adventitious aids may be reckoned the ashes made from the timber cut down in clearing the lands, the sugar extracted from the juice of the maple-tree, and the extensive distilleries of spirits for the consumption of the country, from the surplus grain and fruits, with which it abounds.

The pot and pearl-ashes have already become an immense article of productive commerce*, and a strong probability exists, that the maple-sugar will also become an object of considerable advantage to the farmer, when population is more extended. It is made at a season which does not interfere with any agricultural pursuit, and it is not improbable, that the high price of this article will hold out sufficient encouragement to the northern american farmers,

* Pot and pearl-ashes, exported 1789 and 1790, in one year amounted to 231,048l. sterling.

who have inexhaustible forests of these maple-trees within their reach, to make this manufacture an object of their attention; and when once they get into the train of producing it, large quantities will be brought regularly to market. According to an estimate, which has been founded on experiment, four stout men will produce about 40 hundred weight of sugar, from six weeks labour, during the months of February and March, before the tillage commences.

The distillery is a still more obvious resource, as the consumption of spirits is immense, and must daily increase, as the means of producing it from surplus grain and fruits also increase.

But perhaps, to a british subject, the most pleasing circumstance in this detail of facts is, that these fertile back lands in America, by offering such advantages in the cultivation of the soil, will obviously divert the attention of the people from manufactures; for few men will chuse to follow any handicraft employment, subjecting them to constant labour and confinement, who can occupy rich and productive lands for almost nothing, compared to the value of the same property in Europe.

On considering the state of landed property in America, at the present crisis, and after a full investigation of the facts connected with this object, two circumstances would appear obvious; namely,

1st. That in no country in the world are the rights of land better secured than in America, or the titles so simple or so indisputably clear; nor is it possible that greater protection can in general be extended to every species of property, than now exists, and will prevail in a greater degree, as the system of government advances in energy and perfection.

2d. That in no country, comparatively speaking, are lands so cheap as they can be obtained at present in America, even by many hundred per cents.

The reasons to be assigned for the very low price of lands are, that the Americans themselves have not, till of late, had any active capital among them, and Europeans have not been accustomed to turn their attention to this object. Where, therefore, there is no competition, and abundance of any article at market, it must of course sink under its value.

This has been the case hitherto: but the time is fast approaching, when it will be so no longer. An existing
active

active capital will soon embrace this particular object, and an increase of people, rapidly advancing, will stamp a new and increased value on all unoccupied lands, within 300 to 400 miles of the sea.

The true criterion for ascertaining the probable value of this species of property, in time coming, is to mark the progress of population in the northern and middle states of America, and the obvious effects of this population in advancing the price: to look also at the future increase of America, and to form estimates from facts alone, of what may be expected as population advances.

The facts now offered, in elucidation of this position, are these following: and they are incontestably true, and to be relied on, as events that have actually occurred.

1st. It has happened in the course of the last three years, that tracts of land in the back parts of New-York government, which had been sold in townships of six miles square, containing 23,040 acres, at one shilling sterling per acre, have been subdivided and sold in farms, to settlers, from one half to one, two, three, four, and five dollars an acre, according to the situation and quality of the soil; and the price is yearly advancing, as the settlers increase.

2d. It has also happened, within the last three years, that lands, 70 to 80 miles west of Albany, which sold for one dollar an acre, now bring, without any cultivation or improvement, two or three dollars, which lands would not have brought one shilling an acre seven years ago.

3d. Upon the Mohawk river, west of Albany, lands, which ten years ago would not have brought more than from five to fifteen shillings an acre, now sell from 3l. to 10l. an acre; and this price, high as it is, is advancing with the increase of population in that part of America, which has been most rapid.

From this statement of facts (which apply in general to every part of America in the progress of settlement), it appears evident, that inhabitants alone are necessary, to enhance the value of landed property in those parts of the United States which are nearest the thick-settled countries.

It may therefore be necessary to inquire into the facts, relative to the probability of people being found to purchase and cultivate these lands.

In order to ascertain this, it will be proper to recur again to the fact already stated, relative to the aggregate population

Jation of the United States, which is estimated at nearly four millions*.

Of these four millions of people, it is supposed that at least one-eightieth part, or about 50,000 souls, must move back into the new lands every year, independent of emigrants from Europe. There not being room in the thick-settled countries nearer the sea, and the lands being not only much less fertile, but also dearer than the new lands, the young people, who generally marry as soon as they are of age, have been for ten years past in the regular practice of moving back, from 200 to 400 miles from the sea, where they become proprietors of lands at a small price, and where the soil being much more fertile and productive, they soon get forward in the world, and become independent: and this plan having uniformly succeeded wherever it has been tried, the course of emigration has become regular and periodical; and for the last three years, the attention of the New-England states has been principally directed to the back settlements in the state of New-York.

In purchasing lands therefore in America, although little doubt can be entertained of a good soil being productive in time, in any situation, not exceedingly remote; yet the great advantages which are to be immediately derived, must be from the purchase of lands particularly situated, and particularly circumstanced; where the soil is proved to be good, by unquestionable evidence, and where the distance is so near thick population, as to secure a quick and rapid settlement: and such seem to be the peculiar properties of the lands which are situated on the eastern boundary of lake Ontario, and on the south side of St. Lawrence river.

* The following is an exact copy of the census last made of the people of the United States, by which is known the number inhabiting each state.

1 Georgia	82,548		
2 South-Carolina	250,000	10 New-York	2,544,920
3 North-Carolina	393,751	11 Connecticut	340,120
4 Kentucky	73,677	12 Rhode Island	237,496
5 Virginia	747,610	13 Massachusetts	68,825
6 Maryland	319,728	14 Main	378,787
7 Delawar	59,094	15 New-Hampshire	96,540
8 Pennsylvania	434,373	16 Vermont	141,185
9 New-Jersey	184,139	17 Western Territory	85,539
			40,000
	<u>2,544,920</u>		<u>3,933,412</u>

This

This country, which is within a short distance of Albany, and directly opposite to the populous settlement, and the seat of government, of Upper Canada, and in the immediate vicinity of Grand isle and Buck's isle, which form the great entrepot of the trade of the lakes, certainly possesses many advantages calculated to invite settlers.

Except one tract in a more western situation, it is the only extensive body of land now to be sold in the state of New-York, or indeed in any of the northern or middle states, where the very large tracts of unoccupied lands are chiefly disposed of.—The advantages which both these districts of country possess, must unquestionably secure to the proprietors a rapid population; and those who are so fortunate as to possess a part of this property, at the low price at which large tracts of land may now be purchased by wholesale, for money, namely about half a dollar an acre, and can afford to spare the money, in the mean time, must acquire a large and accumulating fortune in a very few years.

In contemplating the progressive increase of property invested in american lands in the course of being settled, the mind almost grows wild, and is lost in the magnitude of the object, and in the astonishing accumulation of wealth, which arises from this species of investment; to elucidate which, the following prospectus has been formed, upon the scale of 800,000 acres, purchased at one half dollar an acre,

Prospectus shewing the benefits arising from the purchase and settlement of 800,000 acres of land, in the state of New-York, in North America.

Suppose 800,000 acres, purchased at 2s. 3d. sterling per acre is - - - - - £90,000 0 0
 Deduct an allowance for surveys, roads, expence of deeds, and discount for money, &c. to be made by the feller 10,000 0 0

Nett cost of the land, supposed - £80,000 0 0

LANDED PROPERTY IN AMERICA.

557

Estimate of the probable progress of the sale of lands to actual settlers in America, with the expences and profit, &c. upon the scale of seven years.

Year	Specification of the proportions to be sold each year to settlers.	Price in sterling.	Gross sales to settlers in America, in sterling.	Interest on sales by instalments, 6 per cent.	Outgoes, including interest, 5 per cent accumulated.	Expences of surveys and subdivisions, &c.	Expence of agency and all other expences, 5 per cent.	Nett profit obtained each year, besides interest accumulated.
1793	Suppose 1-8th part of the whole tract to be sold the first year, in small farms, of 200 to 500 acres, to actual settlers, say 100,000 acres	s. d. 3 6	£. 17,500 0 0	£. — —	£. 14,000 0 0	£. s. d. 416 13 4	£. s. d. 875 0 0	£. s. d. 2,208 6 8
1794	Suppose 1-8th part fold the second year, after settlements are made, at the advanced price of a dollar an acre, 100,000 acres	4 6	22,500 0 0	1,050 0 0	14,200 0 0	416 13 4	1,125 0 0	7,808 6 8
1795	Suppose 1-8th part fold the 3d year, 100,000 acres	5 6	27,500 0 0	2,400 0 0	14,410 0 0	416 13 4	1,375 0 0	13,698 6 8
1796	Suppose 1-8th part fold the 4th year, 100,000 acres	6 9	38,750 0 0	4,050 0 0	14,620 0 0	416 13 4	1,937 10 0	25,825 16 8
1797	Suppose 1-4th part fold the 5th year, 200,000 acres	7 6	72,500 0 0	6,375 0 0	29,660 0 0	833 6 8	3,625 0 0	44,756 13 4
1798	Suppose 1-8th part fold the 6th year, 100,000 acres of reserved lands	9 0	45,000 0 0	10,725 0 0	15,040 0 0	416 13 4	2,250 0 0	38,018 6 8
1799	Suppose 1-8th part fold the 7th year, 100,000 acres of fine reserved lands	10 6	52,500 0 0	13,425 0 0	15,260 0 0	416 13 4	2,625 0 0	47,623 6 8
			276,250 0 0	38,025 0 0	17,190 0 0	3,333 6 8	13,812 10 0	179,939 3 4

NOTE. This estimate supposes, that the land may be sold to actual settlers, progressively in the course of seven years, and in the proportions above stated. Upon an inquiry into the facts, it will be found, that the calculations are under the general retail prices in the country; and that nothing is stated that may not with ease be accomplished within the time limited.

To a mind not familiar to objects of this sort, it seems wonderful, that there should exist such an evident means of acquiring great property, without generally attracting the notice of all the great monied men in Europe ; but this is easily explained, by stating, that till within the last two years there was no government in America, calculated to beget confidence ; and it requires time to wipe away prejudices. Besides, these rich lands, in the back settlements of New-York, have only been recently explored, and their true value is alone to be discovered by those minds who are capable of discerning important and interesting facts, through the veil of those prejudices which envelope this particular object.

The time however is not remote, when those prejudices will cease to exist, and then every monied man in Europe will wish to invest a part of his property in american lands ; but when that period shall arrive, the great advantages which now present themselves, will be diminished from an immense profit, to a moderate return for money. The present, therefore, is the moment to invest, as lands will unquestionably advance rapidly, after the floating property, now in America, can no longer be employed to advantage in the funds ; and all real estates will continue to rise afterwards, every year, until they shall reach their true value. As the first cost is next to nothing at present, it is a species of property which can never depreciate ; on the contrary, it must progressively advance in a ratio beyond any thing that ever occurred in Europe ; and whoever possesses american landed property, in good situations as to soil and climate, will unquestionably experience, every year, an increase of wealth, far above what arises in general from pecuniary investments in Europe, with this singular advantage, that scarce any trouble, and not even the shadow of risque, attends the object ; and consequently the dread of loss can never occur, to occasion a moment's anxiety to those who can spare the money for a few years, and shall chuse to invest it in this species of property.

No. XI.

Gentlemen of the senate and of
the house of representatives.

*United States,
December 30, 1794.*

I LAY before you a report made to me by the secretary of war respecting the frontiers of the United States. The disorders and the great expences which incessantly arise upon the frontiers are of a nature and magnitude to excite the most serious considerations.

I feel a confidence that congress will devise such constitutional and efficient measures as shall be adequate to the great objects of preserving our treaties with the indian tribes, and of affording an adequate protection to our frontiers.

G. WASHINGTON.

The secretary of war respectfully submits to the president of the United States, the following observations respecting the preservation of the peace with the indian tribes with whom the United States have formed treaties.

TO retrace the conduct of the government of the United States towards the indian tribes, since the adoption of the constitution, cannot fail to afford satisfaction to every philosophic and humane mind.

A constant solicitude appears to have existed in the executive and congress not only to form treaties of peace with the Indians upon principles of justice, but to impart to them all the blessings of civilized life, of which their condition is susceptible.

That a perseverance in such principles and conduct will reflect permanent honour upon the national character cannot be doubted. At the same time it must be acknowledged that the execution of the good intentions of the public is frequently embarrassed with perplexing considerations.

The desires of too many frontier white people to seize by force or fraud upon the neighbouring indian lands has been, and still continues to be, an unceasing cause of jealousy and hatred on the part of the Indians; and it would appear upon a calm investigation, that until the Indians can be quieted upon this point, and rely with confidence upon the protection of their lands by the United States, no well-grounded hope of tranquillity can be entertained.

The encroachment of white people is incessantly watched, and in unguarded moments they are murdered by the Indians,

dians. Revenge is sought, and the innocent frontier people are too frequently involved as victims in the cruel contest. This appears to be a principal cause of indian wars. That there are exceptions will not be denied. The passion of a young savage for war and fame is too mighty to be restrained by the feeble advice of the old men. An adequate police seems to be wanting, either to prevent or punish the depredations of the unruly. It would afford a conscious pleasure, could the assertion be made on our parts, that we have considered the murders of Indians the same as the murders of whites, and have punished them accordingly. This however is not the case. The irritated passions on account of savage cruelty are generally too keen in the places where trials are had, to convict and punish for the killing of an Indian. It is considered as unnecessary to cite instances, although multitudes might be adduced in almost every part of the country from its first settlement to the present time.

If this view of the inability of both parties to keep the peace be correct, it would seem to follow as a just consequence, that an adequate remedy ought to be provided for an evil of such magnitude.

It is certainly an evil to be involved in hostilities with tribes of savages, amounting to two or three thousand, as is the case north-west of the Ohio. But this evil would be greatly increased were a general indian war to prevail south of the Ohio; the indian warriors of the four nations in that quarter not being much short of 14,000, not to advert to the combinations which a general indian war might produce with the european powers, with whom the tribes both north and south of the Ohio are connected.

It seems that our own experience would demonstrate the propriety of endeavouring to preserve a pacific conduct in preference to a hostile one with the indian tribes. The United States can get nothing by an indian war, but they risque their men, money, and reputation. As we are more powerful and more enlightened than they are, there is a responsibility of national character, that we should treat them with kindness and even liberality. It is a melancholy reflection, that our modes of population have been more destructive to the indian natives than the conduct of the conquerors of Mexico and Peru. The evidence of this is the utter extirpation of nearly all the Indians in the most populous parts of the union. A future historian may mark the causes of this destruction of the human race in sable colours. Although the present government of the United States cannot
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with propriety be involved in the opprobrium, yet it seems necessary however, in order to render their attention upon this subject strongly characteristic of their justice, that some powerful attempts should be made to tranquillize the frontiers, particularly those south of the Ohio. The situation of the settlements on Cumberland loudly demands the interference and protection of government. It is true some unauthorized offensive operations have proceeded from thence against the lower Cherokee towns, and victims were sacrificed. Whether these victims were all warriors, or whether women and children were not involved in the destruction, seems to merit inquiry.

Upon the most mature reflection the subscriber has been able to bestow upon this subject, arising from the experience of several years observation thereof, he humbly conceives all attempts to preserve the peace with the indian tribes will be found inadequate, short of an arrangement somewhat like the following; to wit,

1st, That a line of military posts, at such distances as shall be directed, be established upon the frontiers within the indian boundary, and out of the ordinary jurisdiction of any state, provided consent can be obtained for the purpose from the indian tribes; that these posts be garrisoned with regular troops under the direction of the president of the United States.

2dly, That if any murder or theft be committed upon any of the white inhabitants by an Indian known to belong to any indian nation or tribe, such nation or tribe shall be bound to deliver him or them up to the nearest military post in order to be tried and punished by a court martial; or in failure thereof the United States will take satisfaction upon the nearest indian town belonging to such nation or tribe.

3dly, "That all persons who shall be assembled or embodied in arms on any lands belonging to Indians out of the ordinary jurisdiction of any state, or of the territory south of the Ohio, for the purpose of warring against the Indians, or of committing depredations upon any indian town or persons or property, shall thereby become liable and subject to the rules and articles of war, which are or shall be established for the government of the troops of the United States." This was a section of a bill which the senate passed the last session, intitled, "An act for the more effectual protection of the south-western frontiers;" but it was disagreed to by the house.

If to this arrangement the expence should be objected, it is to be remembered that the president of the United States, in pursuance of law, has authorized both the governor of Georgia and the governor of the south-western territory to establish a defensive protection, which amounts to a large sum annually.

Posts therefore requiring garrisons amounting to 1500 non-commissioned and privates, for the whole south-western frontiers from the St. Mary's to the Ohio, would probably be adequate to this object.

If the posts belonging to the United States, and now occupied by the British, north of the Ohio, be soon delivered up, they, with the post at the Miami villages, and posts of communication down the Wabash on the south, and the Miami river to lake Erie on the north, together with a post at Presqu'isle, would be a pretty adequate protection to the frontier north of the Ohio, and a curb to any indian tribes, discontented without just cause, which it is presumed will never be afforded by the government of the United States.

If to these vigorous measures should be combined the arrangement of trade recommended to congress, and the establishment of agents to reside in the principal indian towns with adequate compensations, it would seem that the government would then have made the fairest experiments of a system of justice and humanity, which it is presumed could not possibly fail of being blessed with its proper effects, an honourable tranquillity of the frontiers.

All which is respectfully submitted to the president of the United States.

H. KNOX, secretary of war.

Department of war,
Dec. 29th, 1794.

No. XII.

Treaty concluded between the United States of America
and his Catholic Majesty.

HIS Catholic Majesty and the United States of America, desirous to consolidate on a permanent basis, the friendship and good correspondence which happily prevails between
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the two parties, have determined to establish by a convention, several points, the settlement whereof will be productive of general advantage and reciprocal utility to both nations.

With this intention his catholic majesty has appointed the most excellent lord don Manuel de Goday, and Alvarez de Faria, prince de Paz, duke de la Alcudia, grandee of Spain, of the first class, &c; and the president of the United States, with the advice and consent of their senate, has appointed Thomas Pinckney, a citizen of the United States, and their envoy extraordinary to his catholic majesty. And the said plenipotentiaries have agreed upon and concluded the following articles.

Art. I. There shall be a firm and inviolable peace and sincere friendship between his catholic majesty, his successors and subjects, and the United States, and their citizens, without exception of persons or places.

II. To prevent all dispute on the subject of the boundaries which separate the territories of the two high contracting parties, it is hereby declared and agreed as follows; to wit: The southern boundary of the United States, which divides their territory from the spanish colonies of East and West Florida, shall be designated by a line, beginning on the river Mississippi, at the northernmost part of the 31st degree of latitude north of the equator, which from thence shall be drawn due east, to the middle of the river Apalachicola or Carahsuche, thence along the middle thereof to its junction with the Flint; then straight to the head of St. Mary's river, and thence down the middle thereof to the atlantic ocean. And it is agreed, that if there should be any troops, garrisons, or settlements of either party on the territory of the other, according to the above-mentioned boundaries, they shall be withdrawn from the said territory within the term of six months after the ratification of this treaty, or sooner, if it be possible; and that they shall be permitted to take with them all the goods and effects which they possess.

III. In order to carry the preceding article into effect, one commissioner and one surveyor shall be appointed by each of the contracting parties, who shall meet at Natches on the left side of the river Mississippi, before the expiration of six months from the ratification of this convention; and they shall proceed to run and make this boundary, according to the stipulations of the said article. They shall

make plans, and keep journals of their proceedings, which shall be considered as part of this convention, and shall have the same force as if this were inserted therein. And if on any account it should be found necessary that the said commissioners and surveyors should be accompanied by guards, they shall be furnished in equal proportion by the commanding officer of his majesty's troops in the two Floridas, and the commanding officer of the troops of the United States in the south-western territory, who shall act by common consent, and amicably, as well with respect to this point, as to the furnishing of provisions and instruments, and making every other arrangement which may be necessary or useful for the execution of this article.

IV. It is likewise agreed, that the western boundary of the United States, which separates them from the spanish colony of Louisiana, is in the middle of the channel or bed of the river Mississippi, from the northern boundary of the said states to the completion of the 31st degree of latitude north of the equator. And his catholic majesty has likewise agreed, that the navigation of the said river from its source to the ocean shall be free only to his subjects, and the citizens of the United States, unless he should extend this privilege to the subjects of other powers by a special convention.

V. The two high contracting parties shall, by all means in their power, maintain peace and harmony amongst the several indian nations who inhabit the country adjacent to the lines and rivers which, by the preceding article, form the boundaries of the two Floridas; and the better to attain this effect, both parties oblige themselves expressly to restrain by force, all hostilities on the part of the indian nations living within their boundary; so that Spain will not suffer their Indians inhabiting their territory, nor will the United States permit their last-mentioned Indians to commence hostilities against his catholic majesty, or his Indians, in any manner whatsoever.

And whereas several treaties of friendship exist between the two contracting parties and the said nations of Indians, it is hereby agreed, that in future no treaty of alliance, or other whatsoever (except treaties of peace), shall be made by either party, with the Indians living within the boundary of the other; but both parties will endeavour to make the advantages of the indian trade common and mutually beneficial to their respective subjects and citizens, observing in
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all things the most complete reciprocity, so that both parties may obtain the advantages arising from a good understanding with the said nations, without being subject to the expence which they have hitherto occasioned.

VI. Each party shall endeavour, by all means in their power, to protect and defend all vessels and other effects belonging to the citizens or subjects of the other, which shall be within the extent of their jurisdiction by sea or by land, and shall use all their efforts to recover, and cause to be recovered, to their right owners, their vessels and effects which may have been taken from them within the extent of their said jurisdiction, whether they are at war or not with the subjects who have taken possession of the said effects.

VII. And it is agreed, that the subjects or citizens of each of the contracting parties, their vessels or effects, shall not be liable to any embargo or detention on the part of the other, for any military expedition, or other public or private purpose whatsoever. And in all cases of seizure, detention, or arrest, for debts contracted, or offences committed by any citizen or subject of the one party within the jurisdiction of the other, the same shall be made and prosecuted by order and authority of law only, and according to the regular course of proceedings usual in such cases. The citizens and subjects of both parties shall be allowed such advocates, solicitors, notaries, agents, and factors, as they judge proper in all their affairs, and in all their trials at law, in which they may be concerned, before the tribunal of the other party; and such agents shall have free access to be present at the proceedings in such causes, and at the taking of examinations and evidence which may be exhibited in the said trials.

VIII. In case the subjects and inhabitants of either party, with their shipping, whether public and of war, or private and of merchants, be forced, through stress of weather, pursuit of pirates or enemies, or any other urgent necessity for taking shelter or harbour, to retreat and enter into any of the rivers, bays, roads, or ports belonging to the other party, they shall be received and treated with all humanity, and enjoy all favour, protection, and help; and they shall be permitted to provide themselves, at reasonable rates, with victuals, and all things needful for the sustenance of their persons, or reparation of their ships, and prosecution of their voyage; and they shall noways be hindered from returning out of the said ports or roads, but may remove

and depart when and whither they please, without any let or hindrance.

IX. All ships and merchandise, of what nature soever, which shall be rescued out of the hands of any pirates or robbers on the high seas, shall be brought into some port of either state, and shall be delivered to the custody of the officers of that port, in order to be taken care of, and restored to the true proprietor, as soon as due and sufficient proof shall be made concerning the property thereof.

X. When any vessel of either party shall be wrecked, foundered, or otherwise damaged, on the coast, or within the dominions of the other, their respective subjects and citizens shall receive, as well for themselves as for their vessels and effects, the same assistance which would be due to the inhabitants of the country where the damage happens, and shall pay the same charges and duties only as the said inhabitants would be subject to pay in a like case: and if the operation of repairs would require that the whole, or any part of the cargo be unladen, they shall pay no duties, charges, or fees, on the part which shall relade and carry away.

XI. The citizens and subjects of each party shall have power to dispose of their personal goods within the jurisdiction of the other by testaments, donation, or otherwise; and their representatives, being subjects or citizens of the other party, shall succeed to their said personal goods, whether by testament or *ab intestato*, and they may take possession thereof, either by themselves or others acting for them, and dispose of the same at their will, paying sale duties only, as the inhabitants of the country where the same goods are or shall be subject to pay in like cases. And in case of the absence of the representative, such care shall be taken of the said goods as of a native in like case, until the lawful owner may take measures for receiving them. And if questions should arise among several claimants, to which of them the goods belong, the same shall be decided by the laws and judges of the land wherein the said goods are. And where on the death of any person holding real estate within the territories of the one party, each real estate would, by the law of the land, descend on a citizen or subject of the other, were he not disqualified by being an alien, such subject shall be allowed a reasonable time to sell the same, and to withdraw the proceeds without molestation.

ation, and exempt from all right of detraction on the part of the government of the respective states.

XII. The merchant-ships of either parties which shall be making into ports, or into a port belonging to the enemy of the other party, and concerning whose voyage, and the species of goods on board her, there shall be just grounds of suspicion, shall be obliged to exhibit as well upon the high seas as in the ports and havens, not only her passport, but likewise certificates, expressly shewing that her goods are not of the number of those which have been prohibited as contraband.

XIII. For the better promoting of commerce on both sides, it is agreed, that if a war shall break out between the two said nations, one year after the proclamation of war shall be allowed to the merchants in the cities and towns where they shall live, for collecting and transporting their goods and merchandises; and if any thing be taken from them, or any injury done them, within that term, by either party, or the people or subjects of either, full satisfaction shall be made by the government.

XIV. No subject of his catholic majesty shall apply for, or take any commission or letters of marque, for arming any ship or ships to act as privateers against the United States, or against the citizens, people, or inhabitants of the said United States, or against the property of any of the inhabitants of any of them, from any prince or state, with which the United States shall be at war. Nor shall any citizen, subject, or inhabitant of the said United States, apply for, or take any commission or letters of marque, for arming any ship or ships to act as privateers against the subjects of his catholic majesty, or the property of any of them, from any prince or state with which the said king shall be at war. And if any person of either nation shall take such commission or letters of marque, he shall be punished as a pirate.

XV. It shall be lawful for all and singular subjects of his catholic majesty, and the citizens, people, and inhabitants of the United States, to sail with their ships, with all manner of liberty and security, no distinction being made, who are the proprietors of the merchandises laden therein, from any port to the places of those who now are, or hereafter shall be, at enmity with his catholic majesty or the United States. It shall be likewise lawful for the subjects and inhabitants aforesaid to sail with the ships and merchandises

afore mentioned, and to trade with the same liberty and security from the places, ports, or havens of those who are enemies of both, or either party, without any opposition or disturbance whatsoever, not only from the places of the enemy afore mentioned to neutral places, but also from one place belonging to an enemy, whether they be under the jurisdiction of the same prince, or under several: and it is hereby stipulated, that free ships shall also give freedom to goods, and that every thing shall be deemed free and exempt which shall be found on board the ships belonging to the subjects of either of the contracting parties, although the whole lading, or any part thereof, should appertain to the enemy of either, contraband goods being always excepted. It is also agreed, that the same liberty be granted to persons who are on board a free ship; so that, although they may be enemies to either party, they shall not be made prisoners, or taken out of that free ship, unless they are soldiers, and in actual service of the enemies.

XVI. This liberty of navigation and commerce shall extend to all kinds of merchandises, excepting only those which are distinguished by the name of contraband; and under this name of contraband, or prohibited goods, shall be comprehended arms, great guns, bombs, with their fuses, and the other things belonging to them, cannonballs, gunpowder, match, pikes, swords, lances, spears, halberts, mortars, petards, grenades, saltpetre, muskets, musket-balls, bucklers, helmets, breastplates, coats of mail, and the like kind of arms, proper for arming soldiers; musket-rests, belts, horses with their furniture, and all other warlike instruments whatever. These merchandises which follow, shall not be reckoned among contraband or prohibited goods; that is to say, all sorts of cloths, and all other manufactures woven of any wool, flax, silk, cotton, or any other materials whatever, all kinds of wearing apparel, together with all species whereof they are used to be made; gold and silver, as well coined as uncoined, tin, iron, latten, brass, copper, coals; as also wheat, barley, and oats, and any other kind of corn and pulse; tobacco, and likewise all manner of spices, salted and smoaked flesh, salted fish, cheese and butter, beer, oils, wines, sugar, and all sorts of salt; and in general, all provisions which serve for the sustenance of life; furthermore, all kinds of cotton, hemp, flax, tar, pitch, ropes, sails, sail-cloths, anchors, or any part of anchors, also ship-masts, planks, and wood of all

all kinds, and all things proper either for building or repairing ships, and all other goods whatever which have not been worked into the form of any instrument prepared for war by land or by sea, shall not be reputed contraband, much less such as have been already wrought and made up for any other use; all which shall be wholly reckoned amongst free goods; as likewise all other merchandises and things which are not comprehended, and particularly mentioned in the foregoing enumeration of contraband goods; so that they may be transported and carried in the freest manner by the subjects of both parties, even to places belonging to an enemy, such towns or places being only excepted as are at that time besieged, blocked up, or invested; and except the places in which any ship of war or squadron shall, in consequence of storms or other accidents at sea, be under the necessity of taking the cargo of any trading vessel or vessels, in which case they may stop the said vessel or vessels, and furnish themselves with necessaries, giving a receipt, in order that the power to whom the said ship of war belongs, may pay for the article so taken, according to the price thereof, at the port to which they may appear to have been destined by the ship's papers; and the two contracting parties engage, that the vessels shall not be detained longer than may be absolutely necessary for their said ships to supply themselves with necessaries; that they will immediately pay the value of the receipts, and indemnify the proprietor for all losses which he may have sustained in consequence of such transaction.

XVII. To the end that all manner of dissensions and quarrels may be avoided and prevented on one side and on the other, it is agreed, that in case either of the parties hereto should be engaged in a war, the ships and vessels belonging to subjects or people of the other party, must be furnished with sea letters of passports, expressing the same, property and bulk of the ship, as also the place and habitation of the master or commander of the said ships, that it may appear thereby that the ships really and truly belong to subjects of one of the parties; which passport shall be made out and granted according to the form annexed to this treaty. They shall likewise be recalled every year, that is, if the ship happens to return home within the space of a year.

It is likewise agreed, that such ships being laden, are to be provided not only with passports, as above mentioned, but

but also with certificates, containing the several particulars of the cargo, the place whence the ship sailed, so that it may be known whether any forbidden or contraband goods be on board the same; which certificates shall be made out by the officers of the place whence the ship sailed in the accustomed form; and if any one shall think it fit or adviseable to express in the said certificates the person to whom the goods on board belong, he may do so; without which requisites they may be sent to one of the ports of the other contracting party, and adjudged by the competent tribunal, according to what is above set forth, that all the circumstances of this omission having been well examined, they shall be adjudged to be legal prizes, unless they shall give legal satisfaction of their property by testimony equally equivalent.

XVIII. If the ships of the said subjects, people, or inhabitants of either of the parties shall be met with, either sailing along the coasts, or on the high seas, by any ships of war of the other, or by any privateer, the said ship of war, or privateer, for avoiding any disorder, shall remain out of cannon-shot, and may send their boats on board the merchant-ship which they shall so meet with, and may enter her, to the number of two or three men only, to whom the master or commander of such ship or vessel shall exhibit his passports concerning the property of the ship, made out according to the form inserted in this present treaty; and the ship, when she shall have shewn such passport, shall be free and at liberty to pursue her voyage, so as it shall not be lawful to molest or give her chase in any manner, or force her to quit her intended course.

XIX. Consuls shall be reciprocally established, with the privileges and power which those of the most favoured nations enjoy in the ports where their consuls reside, or are permitted to be.

XX. It is also agreed, that the inhabitants of the territories of each party shall respectively have free access to the courts of justice of the other; and they shall be permitted to prosecute suits for the recovery of their property, the payment of their debts, and for obtaining satisfaction for the damages which they may have sustained, whether the persons whom they may sue be subjects or citizens of the country in which they may be found, or any other persons, whatever who may have taken refuge therein; and the proceedings and sentences of the courts shall be the same as if the
contending

contending parties had been subjects or citizens of the said country.

XXI. In order to terminate all differences on account of the losses sustained by the citizens of the United States, in consequence of their vessels and cargoes having been taken by the subjects of his catholic majesty during the late war between Spain and France, it is agreed that all such cases be referred to the final decision of commissioners to be appointed in the following manner: His catholic majesty shall appoint one commissioner, and the president of the United States, by and with the advice and consent of the senate, shall appoint another; and the said two commissioners shall agree on the choice of a third, or if they cannot so agree, they shall each propose one person; and of the two names so proposed, one shall be drawn by lot in the presence of the two original commissioners; and the person whose name shall be drawn shall be the third commissioner; and the three commissioners so appointed shall be sworn impartially to examine and decide the claims in question, according to the merit of the several cases, and to justice, equity, and the laws of nations. The said commissioners shall meet and sit at Philadelphia; and in case of the death, sickness, or necessary absence of any such commissioner, his place shall be supplied in the same manner as he was first appointed, and the new commissioner shall take the same oaths, and do the same duties. They shall receive all complaints and applications authorised by this article during 18 months from the day on which they shall assemble. They shall have power to examine all such persons as come before them on oath or affirmation touching the complaints in question, and also to receive in evidence all written testimony authenticated in such a manner as they shall think proper to require or admit. The award of the said commissioners, or any two of them, shall be final and conclusive, both as to justice of the claim, and the amount of the sum to be paid to the claimants; and his catholic majesty undertakes to cause the same to be paid in specie, without deduction, at such time and places, and under such conditions, as shall be awarded by the same commissioners.

XXII. The two high contracting parties, hoping that the good correspondence and friendship which happily reigns between them, will be further increased by this treaty, and that it will contribute to augment their prosperity and opulence, will in future give to their mutual commerce all the
extension

extension and favour which the advantages of both countries may require.

And in consequence of the stipulations contained in the fourth article, his catholic majesty will permit the citizens of the United States, for the space of three years from this time, to deposit their merchandises and effects in the port of New Orleans, and to export them from thence without paying any other duty than a fair price for the hire of the stores; and his majesty promises, either to continue this permission, if he finds during that time that it is not prejudicial to the interest of Spain, or if he should not agree to continue, he will assign to them on another part of the banks of the Mississippi an equivalent establishment.

XXIII. The present treaty shall not be in force until ratified by the contracting parties, and the ratifications shall be exchanged in six months from that time, or sooner, if possible.

In witness whereof, we, the under-written plenipotentiaries of his catholic majesty and of the United States of America, have signed this present treaty of friendship, limits, and navigation, and have thereunto affixed our seals respectively.

Done at San Lorenzo et Real, this seven and twentieth day of October 1795. THOMAS PINCKNEY, (L. S.)
PRINCE DE LA PAZ, (L. S.)

No. XIII.

Plan of association of the North American land company *.

THE subscribers hereto having, at a great expence of money and time, with much industry acquired a large and valuable property, consisting of lands in the states of Pennsylvania, Virginia, North-Carolina, South-Carolina, Georgia, and Kentucky, which have been chosen or selected (in preference to other tracts) in consideration of the good quality of the soil, advantageous position, certainty of title, and other circumstances, that induced them, as purchasers, to give such preference, they now offer a plan expressed in the articles of agreement hereto annexed, by which all persons

* Established in February 1795.

who

who have money may, if they please, participate in the advantages resulting from the purchase, sale, and improvement of these valuable estates.

The lands upon which this plan is grounded amount to six million of acres agreeably to the schedule hereof hereto annexed, which are valued, one with another, at the average price of half a dollar per acre, or three million of dollars being the capital stock; this, divided upon 30,000 shares, gives 100 dollars per share, at which the proprietors agree to sell in the first instance.

The titles to these estates are vested in trustees as joint tenants, in trust to convey the same to purchasers conformably to the articles of agreement hereto annexed: the monies arising from the sales thereof are for the use and account of the holders or possessors of the shares in the stock of the north american land company.

Articles of agreement indented, made this 20th day of February 1795, by and between the honourable Robert Morris, esq. of the city of Philadelphia, John Nicholson, esq. of the said city of Philadelphia, and James Greenleaf, esq. consul from the United States at Amsterdam, but now in New-York, of the one part, and those who shall become purchasers, owners, or holders of shares, in the north american land company, of the other part.

First. This association shall be styled "The North American land company."

Second. Every owner of one or more shares shall become a member thereof, and a party to these articles in virtue of such ownership, as fully, to all intents and purposes whatever, as if such owner had actually signed and sealed these presents, and cease to be so when he parts with his share or shares.

Third. The capital stock in this company consists in six millions of acres of land, situate in the states of Pennsylvania, Virginia, Kentucky, North-Carolina, South-Carolina, and Georgia; the titles to which are vested in Thomas Willing, esq. now president of the bank of the United States, John Nixon, esq. now president of the bank of North America, and John Barclay, esq. now president of the bank of Pennsylvania, in trust, to convey the same agreeably to these articles.

Fourth. Where two or more persons shall claim the same land under different contracts with the board of managers, or where any person or persons shall claim a tract or
tracts

tracts of land under contract or contracts with the board of managers, and the said board shall dispute such claim, in such cases a suit or suits may be commenced against the said board, in the county of Philadelphia, in the supreme court of Pennsylvania, or in the federal circuit court of Pennsylvania, by the person or persons claiming, and one or more feigned issues joined, in order to determine the right of the parties, and trials had thereon, in the city of Philadelphia; and the said board shall request the trustees to convey the lands so claimed, to the person or persons in whose favour such determination shall be had: and if the said board shall not agree to the commencement of such suit, and to form such feigned issue or issues, or shall not request the trustees to convey to the person or persons requesting such suit to be commenced, or in whose favour such determination shall pass, such person shall be deemed and taken to be in full and perfect possession of the disputed premises; and the trustees being served with a notice in writing, that the said board refused to agree to the commencement of such suit, or to form such issue or issues, or refused or neglected to request the said trustees to convey to such person or persons in whose favour such determination passed, shall be deemed to hold the legal estate therein, in trust for such person or persons, and shall in three months from the service of such notice convey the same accordingly, unless the said board shall, within the said three months, agree to the commencement of such suit or request, the trustees to convey to the person or persons in whose favour such determination shall pass: and where any person has any demand upon or cause of complaint against the company (other than a claim of title to lands), that cannot be amicably adjusted by the board, a suit shall be commenced by such person against the board, in the supreme court of Pennsylvania, or in the federal circuit court of Pennsylvania, and one or more feigned issues joined, in order to try the right of the party and ascertain the quantum of damages, and a trial had thereon in the city of Philadelphia; and if, after a certificate of the verdict and judgment in such trial shall be served upon the board and upon the secretary, the sum recovered and the costs of such suit shall not be paid to the party, he may then maintain his action against the board for money had and received to his use; and the board shall be personally liable to the payment of such sum, unless they can shew that they had not at the time such certificate was served upon them, or at any time afterwards,

wards, monies of the company in their hands sufficient to pay such sum and such costs.

Fifth. The said capital stock in lands shall be represented by 30,000 shares or actions of 200 acres each, so that every person holding a share or shares will be entitled to one thirty thousandth part of the said capital stock of lands, or monies and profits resulting therefrom upon each share.

Sixth. The affairs and business of this company shall be conducted by a board of managers, to be elected at their office in the city of Philadelphia on the 31st day of December in every year, unless when that day happens on a Sunday, and then on the next day, by the holders of shares or actions, each share entitling the holder to a vote in the said elections, to be given personally or by proxy duly authorized. The following form must be executed by a shareholder to entitle his proxy to a vote, and acknowledged by the party, or proved by the oath of one of the witnesses before a notary public or some magistrate authorized by the law of the country where the person executing such proxy shall be, to take such acknowledgment or proof, and the same certified under some authentic public seal: "Know all men by these presents that I

of _____ do hereby appoint

_____ to be my substitute for and in my name and behalf to vote at _____ election of a president, member or members of the board of managers, or secretary of the north american land company as fully as I might or could was I personally present: In witness whereof I have hereunto set my hand and seal this _____ day of _____ 17____" (Seal.)

Seventh. The board of managers shall consist of a president and four members, to be chosen from among the share-holders; of whom the president and two members, or three members, in case the president shall be absent, shall be a competent board to transact business: a majority to prevail where more than three of the board vote, but where only three vote, they are to be unanimous. They shall have a stated meeting on one day (to be fixed on by themselves) in every week, and shall meet as much oftener as the business of the company may require.

Eighth. The said board for the present year, 1795, must be named within articles, as there are not at present any share-holders to elect; and accordingly Robert Morris, Joseph Ball, Thomas Fitzsimons, John Vaughan, and John Nicholson,

Nicholson, are hereby nominated and appointed the board of managers (and shall chuse from amongst themselves a president), until the thirty-first day of December next, when the first election is to be held. The said board, and all future boards, shall have authority to employ a secretary, clerk or clerks, office-keeper or runner, and occasionally counsel learned in the law, and scriveners; and also one or more agent or agents, surveyor or surveyors, to be stationed at the most proper and convenient places for making surveys and sales of the land belonging to the company; and who shall be allowed such salaries or compensations for their respective services, as may be agreed to by the president and board of managers, on behalf of the company.

Ninth. The board of managers shall have authority to sell or contract, either by themselves or by their agents, for the sale of any lands belonging to the company, preferring such purchasers as shall engage to become settlers, or to place settlers on the lands they buy. The board are to obtain the highest prices they can; and may give such credit as they shall judge to consist with the real interest of the company: the board of managers shall also have power, and they are hereby authorised, to lay out and open roads, to lay out a town or towns, and sell the lots therein, and to improve upon such tracts of land belonging to the company, as they shall think proper; one or two farms, of from 500 to 1000 acres, and thereon to erect a dwelling-house, barn, and other needful outhouses, a saw-mill and grist-mill, at the expence, and for account of the company; all of which may be occupied (upon terms to be agreed on by the board of managers) by the agents or surveyors they may employ to sell and settle the said tracts; the said farms and improvements to be finally sold for the benefit of the company.

Tenth. The board of managers shall, whenever they make sale of any lands belonging to this company, deposit the money received for the same, whether in whole or in part, in one of the three banks already mentioned (that is to say, the bank of the United States, the bank of North America, or the bank of Pennsylvania, opening an account for the north american land company with the bank in which the deposit is made; and the monies so deposited, shall be subject solely to the drafts of the president of the board of managers, attested by the secretary, and expressed to be signed in presence of the board, the draft mentioning
the

the purpose for which it is drawn, and that it is for the use and service of the company.

Eleventh. All covenants, articles of agreement, or contracts, made by the board of managers, or by their agents, for the sale of lands, shall be to and in the name of the individuals composing the board; and shall be to them, and the survivor of them, and the executors and administrators of such survivor, to this intent expressly, that suits shall be brought in their names for the use of the said company, and that if such persons shall cease to become members of the board, then suits may be brought and maintained in the name of them, or the survivor of them, or the executors or administrators of the survivor of them, for the use of the said company; and such covenants, articles of agreement, and contracts, shall be deposited with the secretary in their office for safe keeping, and for the purpose of collecting the payments which may be stipulated therein as they become due: all monies received thereon, or from any other source, on account of the company, shall be deposited in the same manner, and upon the same conditions, as mentioned in the preceding article.

Twelfth. The trustees in whom the titles to the lands of the company are vested, shall, in case of the death of any one of their number, immediately after such event, convey by a deed, to be prepared and presented by the board of managers, a joint tenancy with themselves, to such person as the board of managers shall choose for a successor to such deceased trustee.

Thirteenth. The trustees for the time being shall, upon receiving a request in writing, signed by the president and board of managers, attested by the secretary, execute a deed or deeds of conveyance in fee simple, to the purchaser or purchasers for any tract or tracts of land which may have been sold by the board or their agents, it being first certified by the said president, and attested by the secretary, in the manner as before provided, to the said trustees, that the consideration-money hath been paid or secured to be paid; if paid, that it hath been deposited agreeably to the tenth article; if secured, that such securities have been deposited agreeably to the eleventh article.

Fourteenth. The secretary shall, for the present year, be appointed by the president and board of managers; but in future, shall be elected by the share-holders, at the same time and place of election of the president and managers;

and shall keep records in a book, to be opened by him for that purpose, of all deeds of conveyance executed by the trustees, and of all articles of agreement, covenants, mortgages, &c. that concern the company; which book shall be produced at every meeting of the board; and the original papers shall be produced whenever called for by the board.

Fifteenth. The board of managers, or their agents, may covenant to make title to purchasers when the payments are completed; or title may be granted at the time of sale and mortgage; or the lands be taken to secure the payments agreed on.

Sixteenth. The secretary shall attend every meeting of the board of managers; he shall keep regular minutes of their proceedings; he shall summon such meetings, when directed by the president, or upon application of any two or more members of the board, or upon application of 20 share-holders, by sending a notice, in writing, to the president, and to each member, naming the time and place of such meeting.

Seventeenth. Vacancies which may happen in the board of managers by death, resignation, or removal to a distance of ten miles from the city of Philadelphia, of any member or members, may and shall be supplied by an election of the board out of other share-holders, residing in the city of Philadelphia, for the remainder of the year, until the next general election by the share-holders; and in case of death, resignation, or absence, of the president or secretary, the said board of managers shall choose a president, and appoint a secretary *pro tempore*, or for the remainder of the year, as the case may require.

Eighteenth. The secretary shall provide a set of books of account for the concerns of the company, wherein shall be regularly entered, a proper account of all sales made, of all monies received and paid, of all notes, bonds, mortgages, and specialties, of every sort and kind, and of all expenditures: and these accounts shall be settled and adjusted, so as that an abstract thereof, together with the said books, be laid before the share-holders at every annual meeting, to be held for the purpose of electing the board of managers; and at every such meeting, the board of managers shall give a full and fair account of their proceedings, and of the actual state of the company's affairs; and in order to give time for the secretary to prepare the accounts and statements, the transfer of shares shall be suspended from the

twentieth to the thirty-first days of December, inclusively, in every year.

Nineteenth The board of managers shall provide an office in the city of Philadelphia, wherein to hold their meetings; and the secretary shall give constant attendance therein, day by day, at such hours as may be fixed on by the board of managers, to perform the duties of his station, and for the purpose of laying before any share-holder that may desire it, the book of minutes, book of records, books of account, and to give such other information respecting the estate and affairs of the company, as will convey a true idea of its actual situation.

Twentieth. The certificates for shares or actions shall be transferable at the pleasure of the holder; but the transfers must be made by the holder in person, or by his attorney, or legal representative, at the office of the board of managers, in presence of the secretary; who shall keep a record of all transfers, in a book to be provided and kept for that purpose; which transfers shall be signed by the person transferring, who shall also deliver up the old certificate or certificates, to be cancelled and filed, and new ones shall be issued to the same amount to the transferee. Persons wanting to transfer shares, as attornies, must produce a power in the following form: "Know all men by these presents, that _____ do make, constitute, and appoint _____ to be true and lawful attorney for _____ and in _____ name to sell, assign, and transfer _____ stock or shares standing in _____ name in the books of the north american land company, with power also as attorney or attornies, under _____ for the purpose to make and substitute, and to do all lawful acts requisite for effecting the premises; hereby ratifying and confirming all that _____ said attorney or substitute or substitutes shall do therein by virtue hereof. In witness whereof, _____ have hereunto set _____ hand and seal, the _____ day of _____ in the year of our Lord one thousand _____ hundred and _____"

And the same shall be acknowledged, proved, and certified, in same manner and form as is before provided with respect to the execution of proxies.

Twenty-first. The president, and board of managers, shall cause a statement of the company's sales and receipts to be made out, and printed annually, or if they see proper, half-yearly; one copy of which shall, at the time, be forwarded

to every share-holder that may leave his address at the office for that purpose, at his expence, and as he shall direct.

Twenty-second. The board of managers shall, in the course of the last ten days of the month of December in every year during the existence of this company, cause the accounts of the company to be made up; and after paying office-rent, salaries, and contingent charges, and after reserving such as they may think necessary for a contingent fund, not exceeding 4000 dollars, they shall declare a dividend of the remaining balance of the cash in hand, by dividing the same into thirty thousand parts, and allowing one of those parts to each share: the dividend so made shall be advertised in the public newspapers, and the share-holders be notified that they may personally, or by their attorney, or legal representative, apply at the company's office, and receive payment: and if at any time the receipt of monies, on account of the company, should be so great previous to the end of the year, as to admit of more than one dividend, the president and board of managers may, in their discretion, declare one or more dividends at such time or times as they shall deem proper, the said dividends to be advertised and paid in the same manner as is above provided.

Twenty-third. It is agreed, by the said Robert Morris, John Nicholson, and James Greenleaf, parties of the first part, that the dividend or dividends shall not be less than six per cent. per annum, or six dollars on each share in every year; and that if the cash arising from the sales does not amount to that sum, they the said parties of the first part do hereby promise, and bind themselves, their heirs, executors, and administrators, to advance and lend to the board of managers, such sum as may be necessary, in addition to what they have in hand of the company's money, to enable them to pay six dollars on each share, the board of managers granting their obligation to the said parties of the first part, to repay the said advances out of the first monies they may receive thereafter, on account of the company; except such as the said board are obliged, by article the fourth, to pay to persons recovering against the board; and also excepting the monies reserved for a contingent fund. And in order to secure the performance on the part of the said parties of the first part, they do hereby agree to deposit in the hands of the trustees, each 3000 shares

shares or actions, making in all 9000 shares, to be held by them for the use of Robert Morris, John Nicholson, and James Greenleaf respectively; subject, however, to the payment of such sum or sums in any or every year during the continuance of this company, as may be necessary to enable the board of managers to pay a dividend of six per cent: and they are hereby authorized to sell and transfer so many shares as may be needful for that purpose, in case the said Robert Morris, John Nicholson, and James Greenleaf, or some of them, their, or some of their heirs, executors, or administrators, fail to provide by other means the sums necessary; the sums of money arising from such sales of deposited shares, to be in the first instance applied to the payment of the dividend; and afterwards the same sums to be replaced from the company's funds, which shall be reinvested in shares, for account of the said Robert Morris, John Nicholson, and James Greenleaf; and the shares so purchased, shall again be deposited as before, and for the same uses and purposes, it being understood that the said parties of the first part are to draw the annual dividends on their respective parts of the deposited shares.

Twenty-fourth. The president and the managers must necessarily devote much time and labour to the business of this company; the profits will be great and certain, therefore the company can well afford to pay those who serve them. It is therefore agreed, that the president and managers shall be allowed a commission of two and a half per cent. on the amount of the sales they make; receivable by them only out of the payments actually received; or as the cash comes into the company's possession; which commission shall be divided into five parts, one for the president, and one for each member of the board.

Twenty-fifth. The president, and each member of the board of managers, and the secretary, shall severally give security to the trustees, in the sum of 20,000 dollars, for the faithful discharge of their respective trusts. The board of managers will also take security from the agents and surveyors they may appoint, for the faithful discharge of their duty and trust.

Twenty-sixth. Certificates for 30,000 shares or actions will be immediately made out, signed, and delivered to the parties of the first part, after the execution of these articles, in the following form: "This is to certify, that

is entitled to share in the entire property of the north american land company; the dividends whereof shall not be less than six dollars on each share annually; conformably to articles of agreement duly executed, dated at Philadelphia, the twentieth day of February, one thousand seven hundred and ninety-five, transferable only at the company's office in that city, by the owner in person, or by his executor, administrator, attorney, or legal representative. Signed in the presence, and by order of the board of managers at Philadelphia, this day of 17
 president. Attest. secretary."

Twenty-seventh. This company shall exist for 15 years (unless the sales of their lands, and the collection of the monies, shall be sooner effected), and as much longer as may be necessary to close and settle their concerns, and make a final dividend. At the end of 15 years from the date of these articles of agreement, it shall be the duty of the then board of managers to call, by advertisements in the newspapers, upon the share-holders, to appear in person, or by proxy, at a meeting to be held at the company's office, six months after the date of such advertisement; and there to determine upon the best mode of disposing of any part of the company's estate that may then remain unfold or uncollected, so as to make a just and final division thereof; and a majority of votes given by the share-holders and proxies that meet, shall be conclusive. The said board shall carry the same into effect, and a final dividend thereof, as soon thereafter as may be practicable.

Twenty-eighth. It is further agreed, that if upon experience it shall be found necessary to alter, amend, add to, or diminish, these articles of agreement, the same may be done upon the following terms and conditions, and on no other: the person or persons wishing for an alteration, shall propose the same at an annual meeting of the share-holders, by laying the proposed changes before them in writing: and if such changes or alterations, or any part thereof, meet the approbation of a majority of the share-holders and proxies then met, the propositions so laid before them shall be printed, with notice that decision is to be made thereon at the next annual meeting; and copies thereof be transmitted to every share-holder, who shall leave his address at the office for that purpose, at his expence, and as he shall direct. When two-thirds of the whole number of share-holders and proxies then met, concurring or agreeing to the said

said changes or alterations, or any part thereof (provided that the said two-thirds of the share-holders and proxies represent not less than two-thirds of the whole number of shares), the same shall become a part of these articles, and be incorporated in this plan, and be binding upon all concerned, as if the same had been now inserted and accepted.

Schedule of the lands wheron the above plan is founded, viz.

PENNSYLVANIA.				Acres.	Acres.
Northampton county	-	-	-	72,000	
Northumberland	-	-	-	217,046	
Luzerne	-	-	-	4,500	
Mifflin	-	-	-	34,328	
Huntingdon	-	-	-	29,172	
Westmoreland	-	-	-	40,000	
North and west of Allegany and Ohio rivers	-	-	-	250,000	
					647,046
VIRGINIA.					
Monongahela county	-	-	-	19,700	
Washington	-	-	-	25,000	
Harrison	-	-	-	44,155½	
Ohio	-	-	-	30,000	
Randolph	-	-	-	18,825	
Montgomery	-	-	-	484,025½	
Greenbrier	-	-	-	156,355	
Russell	-	-	-	20,000	
Kanhaway	-	-	-	134,560	
					932,621½
NORTH-CAROLINA.					
Beaufort and Hyde counties	-	-	-	200,000	
Rowan county, on Yadkin river	-	-	-	17,299	
Robinson, Moore, Cumberland, Richmond, and Anson counties	-	-	-	500,000	
					717,299
SOUTH-CAROLINA.					
Orangeburgh district	-	-	-	577,875	
Ninety-six	-	-	-	17,034	
Washington	-	-	-	340,680	
Pinkney	-	-	-	1,883	
Camden	-	-	-	15,130	
Cheraw	-	-	-	4,636	
					957,238
GEORGIA.					
Washington county	-	-	-	1,453,516	
Franklin	-	-	-	320,370	
					Effingham

Effingham	-	-	-	432,910
Camden	-	-	-	108,000
				<hr/> 2,314,796

KENTUCKY.

Fayette county	-	-	-	150,943
Jefferson	-	-	-	29,200
Lincoln	-	-	-	4,000
Mason	-	-	-	246,900
				<hr/> 431,043
Total				<hr/> 6,000,043 $\frac{1}{4}$

Sealed and delivered (the words "hundred" in two places, in the twenty-third article, being first observed to be struck out, and the words "thousand" inserted in their stead), in the presence of

Robert Morris. (*Seal.*)

John Nicholson. (*Seal.*)

N. B. The name of Thomas Fitzsimons, esq. one of the board of managers, is observed to be written on an erasure.]

James Greenleaf. (*Seal.*)

THOMAS PIKE LATHY,
GARRETT COTTRINGER.

The twentieth day of February, anno domini 1795, before me Matthew Clarkson, esq. mayor of the city of Philadelphia, in the state of Pennsylvania, came the above-named Robert Morris, John Nicholson, and James Greenleaf, and acknowledged the above written articles of agreement to be their and each of their act and deed; and desired the same to be received as such, and that it may be recorded. In witness whereof, I have hereunto set my hand and seal.

MATTHEW CLARKSON,
mayor.

(*The seal of the city of Philadelphia.*)

Pennsylvania, ss.

Thomas Mifflin, governor of the commonwealth of Pennsylvania.

To all to whom these presents shall come greeting:

Know ye, that Matthew Clarkson, esq. whose name is subscribed to the foregoing instrument of writing, was, at the time of subscribing the same, and now is, mayor of the city of Philadelphia, in the state of Pennsylvania, duly appointed and commissioned, and full faith and credit is and ought to be given him accordingly.

(*Great seal of
the state of
Pennsylvania.*)

THOS. MIFFLIN.

Given

Given under my hand, and the great seal of the state, at Philadelphia, the twenty-first day of February, in the year of our Lord one thousand seven hundred and ninety-five, and of the commonwealth the nineteenth.

By the governor,
JAMES TRIMBLE, deputy-secretary.

No. XIV.

The secretary of state, to whom was referred by the president of the United States, the resolution of congress, requesting the president "to cause an estimate to be laid before congress at their next session, of the quantity and situation of the lands not claimed by the Indians, nor granted to, nor claimed by any citizens of the United States, within the territory ceded to the United States by the state of North-Carolina, and within the territory of the United States north-west of the river Ohio," makes thereon the following report. [Read in the house of representatives, Nov. 20, 1791.]

THE territory ceded by the state of North-Carolina to the United States, by deed bearing date the 25th day of February 1790, is bounded as follows, to wit: beginning in the boundary between Virginia and North-Carolina, that is to say, in the parallel of latitude $36\frac{1}{2}$ degrees north from the equator, on the extreme height of the Stone mountain, where the said boundary or parallel intersects it, and running thence along the said extreme height to the place where Wataugo river breaks through it; thence a direct course to the top of the Yellow mountain, where Bright's road crosses the same; thence along the ridge of the said mountain between the waters of Doe river and the waters of Rock creek, to the place where the road crosses the Iron mountain; from thence along the extreme height of said mountain to where Nolachucky river runs through the same; thence to the top of the Bald mountain; thence along the extreme height of the said mountain to the Painted rock, on Frenchbroad river; thence along the highest ridge of the said mountain, to the place where it is called the Great iron or Smoky mountain; thence along the

the extreme height of the said mountain to the place where it is called Unaka mountain, between the indian towns of Cowee and Old Chota; thence along the main ridge of the said mountain, to the southern boundary of the said state of North-Carolina, that is to say, to the parallel of latitude 35° north from the equator; thence westwardly along the said boundary or parallel, to the middle of the river Mississippi; thence up the middle of the said river to where it is intersected by the first-mentioned parallel of $36\frac{1}{2}$ degrees; thence along the said parallel to the beginning: which tract of country is a degree and a half of latitude from north to south, and about 360 miles, in general, from east to west, as nearly as may be estimated from such maps as exist of that country.

The Indians having claims within the said tract of country, are the Cherokees and Chickasaws, whose boundaries are settled by the treaties of Hopewell, concluded with the Cherokees on the 28th day of November 1785; and with the Chickasaws, on the 10th day of January 1786, and by the treaty of Holston, concluded with the Cherokees, July 2d, 1791. These treaties acknowledge to the said Indians all the lands westward and southward of the following lines, to wit: beginning in the boundary between South and North-Carolina, where the South-Carolina indian boundary strikes the same; thence north to a point from which a line is to be extended to the river Clinch, that shall pass the Holston, at the ridge which divides the waters running into Little river from those running into the Tenasee; thence up the river Clinch to Campbell's line, and along the same to the top of the Cumberland mountain; thence in a direct course towards the Cumberland river, where the Kentucky road crosses it, as far as the Virginia line, or parallel aforesaid, of $36\frac{1}{2}$ degrees; thence westwardly or eastwardly, as the cause shall be, along the said line or parallel to the point thereof which is due north-east from another point, to be taken on the dividing ridge of Cumberland and Duck rivers, 40 miles from Nashville; thence south-west to the point last mentioned, on the said dividing ridge, and along the said dividing ridge north-westwardly, to where it is intersected by the said Virginia line, or parallel of $36\frac{1}{2}$ degrees: so that there remained to the United States the right of pre-emption of the lands westward and southward of the said lines, and the absolute right to those northward thereof, that is to say, to one parcel

parcel to the eastward, somewhat triangular, comprehending the counties of Sullivan and Washington, and parts of those of Greene and Hawkins, running about 150 miles from east to west, on the Virginia boundary, as its base, and between 80 and 90 miles from north to south, where broadest; and containing, as may be conjectured, without pretending to accuracy, between seven and eight thousand square miles, or about five millions of acres: and to one other parcel to the westward, somewhat triangular also, comprehending parts of the counties of Sumner, Davidson, and Tenaſsee; the base whereof extends about 150 miles also, from east to west, on the same Virginia line; and its height, from north to south, about 55 miles; and so may comprehend about four thousand square miles, or upwards of two and a half millions of acres of land.

Within these triangles, however, are the following claims of citizens, reserved by the deed of cession, and consequently forming exceptions to the rights of the United States:

I. Appropriations by the state of North-Carolina, for their continental and state officers and soldiers.

II. Grants and titles to grants vested in individuals by the laws of the state.

III. Entries made in Armstrong's office, under an act of that state, of 1783, for the redemption of specie and other certificates.

The claims covered by the first reservation, are—

1st, The bounties in land given by the said state of North-Carolina, to their continental line, in addition to those given by congress; these were to be located within a district bounded northwardly by the Virginia line, and southwardly by a line parallel thereto, and 55 miles distant; westwardly by the Tenaſsee, and eastwardly by the meridian of the intersection of the Virginia line and Cumberland river. Grants have accordingly issued for 1,239,498 acres, and warrants for the further quantity of 1,549,726 acres, making together 2,789,224 acres.

It is to be noted, that the south-western and south-eastern angles of this district, constituting perhaps a fourth or a fifth of the whole are south of the lines established by the treaties of Hopewell and Holston, and consequently in a country wherein the indian title is acknowledged and guaranteed by the United States. No information is received of the exact proportion of the locations made within these angles.

Bounties in land to Evan's battalion, raised for state purposes: these were to be taken west of the Cumberland mountain;—the locations are not yet made.

The second reservation covers the following claims:

1st, Lands for the surveyor-general's fees for laying out the military bounties, to be located in the military district. The grants already issued on this account amount to 30,203 acres.

2d, Grants to Isaac Shelby, Anthony Bledsoe, and Absalom Tatum, commissioners for laying out the military bounties; and to guards, chain-carriers, markers, and hunters, who attended them, already issued to the amount of 65,932 acres, located in the military district.

3d, Entries in Washington county, amounting to 746,362½ acres; for 214,549¾; which grants have already issued. Of the remaining 531,812¾ acres, a considerable proportion were declared void by the laws of the state, and were particularly excluded from the cover of the reservation in the deed of cession, by this clause in it, to wit; "Provided that nothing herein contained shall extend, or be construed to extend, to the making good any entry or entries, or any grant or grants, heretofore declared void, by any act or acts of the general assembly of this state." Still it is to be considered, that many of these persons have settled and improved the lands, are willing, as it is said, to comply with such conditions as shall be required of other purchasers, form a strong barrier on the new frontier, acquired by the treaty of Holston, and are therefore objects meriting the consideration of the legislature.

4th, Entries in Sullivan county, amounting to 240,624 acres; for 173,332 acres of which, grants have already issued; of the remaining entries, many are certified void, and others understood to be lapsed or otherwise voidable under the laws of the state.

5th, Certain pre-emption rights granted to the first settlers of Davidson county, on Cumberland river, amounting to 390,760 acres.

6th, A grant of 200,000 acres to Richard Henderson, and others, on Powell's and Clinch's rivers, extending up Powell's river in a breadth of not less than four miles, and down Clinch's from their junction in a breadth not less than 12 miles. A great part of this is within the indian territory.

Among the grants of the state now under recapitulation,

as forming exceptions out of the absolute rights of the United States, are not to be reckoned here, two grants of 2000 acres each to Alexander Martin and David Wilson, adjacent to the lands allotted to the officers and soldiers; nor a grant of 25,000 acres on Duck river to the late major-general Greene; because they are wholly within the indian territory, as acknowledged by the treaties of Hopewell and Holston.

The extent of the third reservation in favour of entries made in Armstrong's office is not yet entirely known, nor can be till the 20th of December 1792, the last day given for perfecting them: the sum of certificates however, which had been paid for these warrants into the treasury of the state, before the 20th day of May 1790, reaches in all probability near to their whole amount; this was £373,649 6s. 5d. currency of that state, and at the price of £10 the hundred acres, established by law, shews that warrants had issued for 3,736,493 acres; for 1,762,660 of these grants have passed, which appear to have been located partly in the counties of Greene and Hawkins, and partly in the country from thence to the Mississippi, as divided into eastern, middle, and western districts. Almost the whole of these locations are within the indian territory. Besides the warrants paid for as before mentioned, it is known that there are some others outstanding and not paid for: but perhaps these need not be taken into account, as payment of them has been disputed, on the ground, that the lands being within the indian territory, cannot now be delivered to the holders of the warrants.

On a review of all the reservations, after making such conjectural allowance as our information authorizes, for the proportion of them which may be within the indian boundaries, it appears probable that they cover all the ceded lands susceptible of culture, and cleared of the indian title, that is to say, all the habitable parts of the two triangles before mentioned, excepting only the lands south of the French-broad and Big Pigeon rivers. These were part of the tract appropriated by the laws of the state to the use of the Indians, whose title being purchased at the late treaty of Holston, they are now free to be disposed of by the United States, and are probably the only lands open to their disposal, within this south-western territory, which can excite the attention of purchasers. They are supposed to amount to about

300,000

300,000 acres, and we are told that 300 families have already set down upon them without right or licence.

The territory of the United States north-west of the Ohio, is bounded on the south by that river, on the east by Pennsylvania, on the north and west by the lines which divide the United States from the dominions of Great Britain and Spain.

The part of this territory occupied by Indians, is north and west of the following lines, established with the Wiandots, Delawares, Chippawas, and Ottawas, by the treaty of fort M'Intosh, and, with the Shawanese, by that of the Great Miami, to wit: beginning at the mouth of the Cayahoga, and running up the river to the portage between that and the Tuscaroras branch of the Muskingum, then down the said branch to the forks, at the crossing place above fort Lawrence, then westwardly, towards the portage of the Big Miami to the main branch of that river, then down the Miami to the fork of that river next below the old fort, which was taken by the French in 1752; thence due west to the river de la Panse, and down that river to the Wabash. So far the lines are precisely defined, and the whole country southward of these lines and eastward of the Wabash cleared of the claims of those Indians, as it is also of those of the Poutiwatimas and Sacs, by the treaty of Muskingum. How far on the other side of the Wabash the southern boundary of the Indians has been defined, we know not. It is only understood in general, that their title to the lower country, between that river and the Illinois, has been formally extinguished by the French, while in their possession. As to that country then, and what lies still beyond the Illinois, it would seem expedient that nothing be done, till a fair ascertainment of boundary can take place by mutual consent between us and the Indians interested.

The country within the Wabash, the indian line before described, the Pennsylvania line, and the Ohio, contains, on a loose estimate, about 55,000 square miles, or 35 millions of acres.

During the british government, great numbers of persons had formed themselves into companies under different names, such as the Ohio, the Wabash, the Illinois, the Mississippi, or Vandalia companies, and had covered with their applications a great part of this territory. Some of them had obtained orders on certain conditions, which having never
been

been fulfilled, their titles were never completed by grants. Others were only in a state of negotiation, when the british authority was discontinued. Some of these claims being already under a special reference by order of congress, and all of them probably falling under the operation of the same principles, they will not be noticed in the present report.

The claims of citizens to be here stated will be,

I. Those reserved by the states in their deeds of cession.

II. Those which have arisen under the government of the United States themselves.

Under the first head presents itself the tract of country from the completion of the 41st degree, to 42° 2' of north latitude, and extending from the Pennsylvania line before mentioned 120 miles westward, not mentioned in the deed of Connecticut, while all the country westward thereof was mentioned to be ceded; about 2,500,000 acres of this may perhaps be without the indian lines before mentioned.

2. A reservation in the deed of Virginia of the possessions and titles of the french and canadian inhabitants and other settlers of the Kaskaskias, St. Vincent's, and the neighbouring villages, who had professed themselves citizens of Virginia, which rights have been settled by an act of the last session of congress, intitled, "An act for granting lands to the inhabitants and settlers at Vincennes and the Illinois country in the territory north-west of the Ohio, and for confirming them in their possessions." These lands are in the neighbourhood of the several villages.

3. A reservation in the same deed of a quantity not exceeding 150,000 acres of land, for general George Rogers Clarke, and the officers and foldiers of his regiment, who were at the reduction of Kaskaskias and St. Vincent's, to be laid off in such place on the north-west side of the Ohio, as a majority of the officers should choose. They chose they should be laid off on the river adjacent to the rapids, which accordingly has been done.

4. A reservation, in the same deed, of lands between the Scioto and little Miami, to make up to the Virginia troops on continental establishment, the quantity which the good lands, in their southern allotments, might fall short of the bounties given them by the laws of that state. By a statement of the 16th of September 1788, it appears that 724,053 $\frac{2}{3}$ acres had been surveyed for them on the south-eastern side of the Ohio; that 1,395,385 $\frac{1}{3}$ acres had been surveyed on the north-western side; that warrants for 649,649 acres more,

to be laid off on the same side of the river, were in the hands of the surveyor, and it was supposed there might still be some few warrants not yet presented; so that this reservation may be stated at 2,045,034 $\frac{1}{3}$ acres, or perhaps some small matter more.

II. The claims of individual citizens derived from the United States themselves are the following:

1. Those of the continental army, founded on the resolutions of congress of September 16, 1776, August 12, and September 30, 1780, and fixed by the ordinance of May 20, 1785. The resolution of October 22, 1787, and the supplementary ordinance of July 9, 1788, in the seven ranges of townships, beginning at a point on the Ohio, due north from the western termination of a line then lately run, as the southern boundary of Pennsylvania: or in a second tract of 1,000,000 of acres, bounded east by the 7th range of the said townships, south by the lands of Cutler and Sargent; north, by an extension of the northern boundary of the said townships; and going towards the west so far as to include the above quantity: or lastly, in a third tract of country, beginning at the mouth of the Ohio, and running up the Mississippi to the river au Vause, thence up the same till it meets a west line from the mouth of the little Wabash; thence along that line to the great Wabash: thence down the same and the Ohio to the beginning. The sum total of the said military claims is 1,851,800 acres.

2. Those of the individuals who made purchases of land at New-York, within the said seven ranges of townships, according to the resolutions of congress of April 21, 1787, and the supplementary ordinance of July 9, 1788, which claims amount to 150,896 acres.

3. The purchase of 1,500,000 acres of land by Cutler and Sargent, on behalf of certain individuals, associated under the name of the Ohio company. This begins where the Ohio is intersected by the western boundary of the 7th range of townships, and runs due north on that boundary 1306 chains and 25 links; thence due west to the western boundary of the 17th range of townships: thence due south to the Ohio, and up that river to the beginning; the whole area containing 1,781,760 acres of land, whereof 281,760 acres, consisting of various lots and townships, are reserved to the United States.

4. The purchase by the same Cutler and Sargent on behalf also of themselves and other. This begins at the north-eastern

eastern angle of the tract of their purchase before described, and runs due north to the northern boundary of the tenth township from the Ohio; thence due west, to the Scioto; thence down the same, and up the Ohio to the south-western angle of the said purchase before described, and along the western and northern boundaries thereof to the beginning; the whole area containing 4,901,480 acres of land, out of which, however, five lots, to wit, Nos. 8, 11, 16, 26, and 29 of every township, of six miles square, are retained by the United States, and out of the whole are retained the three townships of Gnadenhutten, Schœnbrun, and Salem; and certain lands around them, as will be hereafter mentioned.

5. The purchase of John Cleve Symmes, bounded on the west by the great Miami; on the south by the Ohio; on the east by a line which is to begin on the bank of the Ohio, 20 miles from the mouth of the great Miami, as measured along the several courses of Ohio; and to run parallel with the general course of the said great Miami; and on the north by an east and west line, so run as to include a million of acres in the whole area, whereof five lots, numbered as before mentioned, are reserved out of every township by the United States.

It is suggested that this purchaser, under colour of a first and larger proposition to the board of treasury, which was never closed (but pending that proposition), sold sundry parcels of land, between his eastern boundary before mentioned, and the little Miami; and that the purchasers have settled thereon. If these suggestions prove true, the settlers will, perhaps, be thought to merit the favour of the legislature, as purchasers for valuable consideration, and without notice of the defect of title.

The contracts for lands, which were at one time under consideration with Messrs. Flint and Parker, and with colonel Morgan, were never so far prosecuted as to bring either party under any obligation. All proceedings thereon were discontinued at a very early stage, and it is supposed that no further views exist with any party. These, therefore, are not to be enumerated among existing claims.

6. Three townships were reserved by the ordinance of May 20, 1785, adjacent to lake Erie, for refugees from Canada and Nova-Scotia, and for other purposes, according to resolutions of congress, made or to be made on that subject. These would of course contain 69,120 acres.

7. The same ordinance of May 20, 1785, appropriated

the three towns of Gnadenhutzen, Schoenbrun, and Salem, on the Muskingum, for the christian Indians formerly settled there, or the remains of that society, with the grounds round about them; and the quantity of the said circumjacent grounds, for each of the said towns, was determined by the resolution of congress of September 3, 1788, to be so much as, with the plat of its respective town, should make up 4000 acres; so that the three towns and their circumjacent lands were to amount to 12,000 acres. This reservation was accordingly made out of the larger purchase of Cutler and Sargent, which comprehended them. The Indians, however, for whom the reservation was made, have chosen to emigrate beyond the limits of the United States, so that the lands reserved for them still remain to the United States.

On the whole, it appears that the United States may rightfully dispose of all the lands between the Wabash, the Ohio, Pennsylvania, the 41st parallel of latitude, and the indian lines described in the treaties of the great Miami and fort M'Intosh, with exceptions only of the rights saved by the deed of cession of Virginia, and of all rights legally derived from the government of the United States: and supposing the parts south of the indian lines to contain, as before conjectured, about 35,000,000 of acres, and that the claims of citizens before enumerated may amount to between 13 and 14,000,000, there remain at the disposal of the United States upwards of 21,000,000 of acres, in this north-western quarter.

And though the want of actual surveys of some parts, and of a general delineation of the whole on paper, so as to exhibit to the eye the locations, forms, and relative positions of the rights before described, may prevent our forming a well-defined idea of them at this distance, yet, on the spot, these difficulties exist but in a small degree: the individuals there employed in the details of buying, selling, and locating, possess local informations of the parts which concern them, so as to be able to keep clear of each other's rights; or, in some instances a conflict of claims should arise, from any want of certainty in their definition, a local judge will doubtless be provided to decide them without delay, at least provisionally. Time, instead of clearing up these incertainties, will cloud them the more, by the death or removal of witnesses, the disappearance of lines and marks, change of parties, and other casualties.

T. JEFFERSON, secretary of state.

November 8, 1791.

No. XV.

Extract of a letter from a gentleman at the Muskingum, to the printer of the Massachusetts Spy, written on the spot where the first city of that territory is to be built.

Mr. THOMAS,

Adelphi, May 16, 1788.

I AM much pleased with the purchase we have made, and am fully determined to fix my residence here. That part of the purchase I have been over, far exceeds my expectations; from our eastern boundary to the Muskingum (the distance of about five miles), the intervals or what the people of this country call bottoms, are from one half to three quarters of a mile wide; these, in richness, and apparent fertility of soil, exceed any thing I ever saw east of the Allegany mountains. Next to these are what is called second bottoms, which are elevated plains, and gentle risings of the richest uplands, and as free from stone as the low or first bottom, except in some few instances, where these elevated plains consist of a shallow, light, and sometimes sandy soil, under which appears an open loose earth: back of these commence the hills, which in general are considerably uneven, and separated by deep, hollow grounds, where flow innumerable rivulets, which have their source from springs which rise among the hills, the most of which are free from stone, and consist of a rich and deep soil, suited to the culture of wheat, grazing, &c. In this distance fall into the Ohio two very considerable creeks, called little Muskingum and Duck creek; in the spring season these are navigable for boats more than 20 miles, and afford large tracts of the best bottoms and uplands for farming.

We have surveyed the lots of one mile square on both sides the Muskingum, for 15 miles up. A description of the lands in this distance would be only a repetition of that already given of that on the Ohio. The timber growing on the land above described are of the kind mentioned by Mr. Hutchins and others; but I must confess, the trees are larger and more numerous than I expected to find.

We have found plenty of limestone, as well as fine quarries of building stone, at a small distance up the Muskingum, sufficient for building the city, or any other pur-

pose for which they may be wanted. At present we go 20 miles up the river for pit-coal, but there is no doubt plenty will be found nearer: we have found several salt licks within our surveys; and are assured there is a salt spring about 40 miles up the Muskingum, from which a sufficient quantity of salt for the supply of the country may be made. —Some gentlemen at fort Harmar doubt this information, but say a sufficient quantity may be made at a spring on the branch of the Scioto.

We have had no time yet to go in search of iron ore; but one of our people has brought in a small stone, taken from one of the neighbouring hills, which I found on trial to contain a rich iron ore. We find the season here much more forward than even at Pittsburgh; by the 7th of April there was as good feed for cattle on the banks of the Muskingum, as you will generally find by the middle of May in the best enclosures in the county of Worcester.

To give some idea of beginning a settlement in this country, compared with Vermont, or any new country to the northward, I state the following fact:—about a dozen families removed to this place a year ago last March, and settled opposite fort Harmar, on the Virginia side of the Ohio; their lands were the same as ours, and entirely new; they raised 1000 bushels of corn last season; and although the last winter was very severe, they wintered, without any hay (making use of their husks and stalks, with some corn), between 60 and 70 horses and neat cattle, fatted a sufficient quantity of pork for their own consumption, besides wintering over a large number of swine.

From the plot of ground laid out for building the city of Adelphi, we have a most delightful prospect; from this ground you will have a full view of the waters in the Ohio eight or nine miles up that river, and five below; and of the Muskingum from its mouth five or six miles up. The front line of house-lots is 95 yards from the Muskingum, and parallel thereto; all the space between them and the river is to remain an open street or common; the course of this street is north 40° west, and extends in length one mile. All the streets are either parallel or at right angles with that; but from some hollow ground and rivulets the city will not be parallelogram, although that figure has been aimed at as much as the situation would admit; the north-east end thereof is bordered by a beautiful brook, which I am informed runs all the year; the southmost end, and part
of

of the rear, is bounded by another creek larger than the former, which will afford a good canal for boats to pass up when the waters of the Muskingum are high. The house-lots, in their nearest approach to the Ohio, are distant therefrom 25 perch, and separated from it by the last mentioned creek, and low interval lands of the first quality; a part of the house-lots towards the rear are separated from the rest by a deep hollow ground, through which the last mentioned creek passes: these lots are situated in ground gently ascending towards the north-east, which further on terminates in very considerable hills, in which rise eight springs, the sources of the creek last mentioned; these, with a comparative small expence, may be collected into one great reservoir, and conducted to any part of the city.

The city plot includes the ruins of some ancient town or works, of which the world has heard much of late. I have not had time to take an accurate survey of them all, therefore must omit a particular description thereof; but I must confess I was greatly surprised in finding those works so perfect as to put it beyond all doubt that they are the remains of a work erected at an amazing expence, perhaps some thousand years since, by a people who had very considerable knowledge in fortifications. In laying out our city, we have preserved some of the works from becoming private property, by including them within lots or squares appropriated to public uses, viz. an advanced work, containing a mound of earth in the figure of a cone, the base of which is 376 feet in circumference, and is 30 feet perpendicular, surrounded by a parapet 580 feet in circumference and 15 feet thick, having a ditch 15 feet wide, and at present about three feet deep, and on the side next the town, or principal works, an open space without parapet or ditch, where it is presumed was the gate or place of entrance. We have also, in the same manner, secured for public use two elevated mounds of earth, situate within the walls of the great oblong square, or principal fortification; one of them is nearly of a square figure, the sides measuring 153, 45 feet by 135, 7 feet, is raised about five feet above the common surface, and on the top a horizontal plain of the above dimensions, having on three sides thereof gentle ascents projecting out, of about 20 feet wide, in the form of glacis, for the convenience of walking up; and on the fourth side is an indented ascent of the same width. The

other elevated square is an oblong of 200 feet by 124, of about the same height, and as level on the top as the other, and regular projecting ascents on each side thereof; these appear to have been the foundations of some spacious public buildings; but however that may be, they are very convenient, and now reserved for that purpose; the rest of the works can remain, when the city is built, on paper only.

As to the natives, the ensuing treaty I trust will be conducted on principles of honour and justice, and end to the satisfaction of that, as I conceive, much injured people. When we arrived at this place, we fortunately found captain Pipes, the chief of the Delaware tribe, with about 70 men, women, and children, of that and the Wyandot tribes, at fort Harmar, who had come down to trade; we were introduced to them by the commanding officer. Captain Pipes some days after, with about 20 others, came over and dined with me; we gave them to understand our business, and that we hoped to live in friendship, and should be glad to see them, or any of their friends, at all times. Captain Pipes told us that they should be happy to live by us, but did not expect any people would come on to settle before the treaty; we told him we had brought no families, nor would any come on until after the treaty, when we expected every thing would be settled to their satisfaction; in the mean time it was necessary we should plant some corn: Captain Pipes appeared fully satisfied, and parted, with avowing his friendship should continue as long as the sun and moon endured. Since making up this new acquaintance, we have more or less of our indian friends to visit us almost every day, who appear in perfect good humour, and full as happy as we in the new acquaintance; but nothing is said about our settlement, except one of their chiefs, who is now at the fort, and appears to be a very sensible, sober old gentleman, on his first visit to us, told me, that "he thanked God that the way was cleared, so that they could come down with safety to trade; that captain Pipes told him, he and all the Indians were used exceedingly well by us; that he was very glad to see us here, but there were some things he should not speak of until they met in the great council, meaning the treaty."

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